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ABSTRACT

This annotated bibliography focuses on the ecological approach to the study of human development and on the relationship of this approach to an ecological theory of teaching. Topics covered include: (1) the ecological approach to the study of human development; (2) the impact of teacher characteristics on education and teaching; (3) the teacher-student relationship; (4) the effects of family characteristics and family involvement on students and schooling; and (5) the effects of interpersonal interactions and the classroom environment on education and teaching. The first section of the bibliography contains brief annotations of journal articles and monographs. In the second section, references selected from the first section are reviewed in greater depth and summarized. This is one of a series of reports that form a part of the initial phase of a project to develop an ecological theory of teaching. The intent of the series is to provide access to the concepts, paradigms, and findings of the disciplines selected for review. The long-range goal of the project is the development of a theory of teaching that approaches and views classroom teaching and learning from an ecological perspective. (JD)

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ANNOTATED BIBLIOGRAPHY ON HUMAN ECOLOGY

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Report ETT-78-6c

This paper has been produced under the direction of
William J. Tikunoff and Beatrice A. Ward,
Principal Investigators.
It is part of the process of developing
and implementing an ecological theory of teaching.

INTRODUCTION

This is one of a series of reports by the Far West Laboratory for Educational Research and Development concerned with developing an ecological theory of teaching. Under funding by the National Institute of Education, the project has been underway since December 1977 and is projected to continue contingent upon funding from NIE.

Overall long-range goals of the program are four. An initial goal is the development of a theory of teaching that approaches and views classroom teaching and learning from an ecological perspective. Such a perspective builds from knowledge about teaching/learning in the teacher-student learning group as a sociological as well as a psychological process. An underlying assumption is that, previously, only a psychological perspective has been attended to. Thus, disciplines outside educational psychology will be utilized, e.g. human ethology, sociology, anthropology, environmental psychology, human ecology, communications theory, etc., such that a holistic approach to developing the theory will be used.

Attendant to the theory construction and growing out of efforts to pilot test initial constructs and interrelationships is the development of appropriate research methodologies, the second long-range goal. Both qualitative and quantitative methodologies will have to be examined and those selected which provide a "fit" with the phenomena being examined. In addition, these will have to be piloted toward utilization in the testing of the theory.

A third goal is the development and implementation of strategies--both inservice and preservice--which can be used to train teachers and others to utilize the ecological perspective. Such strategies are perceived as being

more sociological in nature than those previously employed. In addition, it is quite likely that not only teachers but all those involved in interacting with teacher and learner groups--students, principals, other adults, etc.--will need to be reoriented to this perspective.

Finally, as a fourth goal, a restructuring experiment in nature is proposed in order to test the theory in operation. Exactly how the experiment will be designed and conducted is the focus for developmental efforts growing from both the development of methodologies and identification of theoretical constructs and (re) training strategies.

The annotated bibliographies and the longer reviews of selected references presented here are part of the initial phase of developing an ecological theory of teaching. The intent of this work is to provide access to the concepts, paradigms and findings of the disciplines selected for review, and to utilize the knowledge and perspectives of those disciplines to illuminate the concerns of an ecological theory of teaching. We see this process of cross-fertilization to be continuous and additive, and have designed the following format to reflect this assumption.

The results of each disciplinary exploration appear on different colors of paper: Cognitive Anthropology and Sociolinguistics (white); Environmental Psychology (brown); Human Ecology (yellow); Human Ethology (green); Sociology (ivory). The individual annotated bibliographies are paginated by topic; the longer reviews which make up the second part of this document are paginated by reference. There is no consecutive pagination, as we intend these bibliographies and reviews to be open-ended, and ready to receive future contributions.

The following annotated bibliography and longer reviews focus on the ecological approach to the study of human development, and the relationship of this approach to an Ecological Theory of Teaching. Topics covered include a full treatment of the ecological approach to the study of human development, the impact of teacher characteristics on variables related to education and teaching, the student-teacher relationship, the effects of family characteristics and family involvement on students and schooling and the effect of interpersonal interaction and the classroom environment on variables related to education and teaching. The annotated bibliography was assembled and the longer reviews conducted by Barbara Babb of Cornell University. We are grateful for her efforts on our behalf. We would also like to thank Dr. Urie Bronfenbrenner, of the Department of Human Development and Family Studies, College of Human Ecology, Cornell University, for his guidance and advice in the preparation of this document.

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SELECTED IN-DEPTH REVIEWS

ANNOTATED BIBLIOGRAPHY

AN ECOLOGICAL APPROACH TO THE STUDY OF HUMAN DEVELOPMENT

Bronfenbrenner, Urie. The family circle: A study in fragmentation. National Elementary Principal, 1976, 55(5), 11-24.
In this article data were presented which describe the fragmentation of the family. Suggestions for reversing the trend were offered.

Bronfenbrenner, Urie. Epilogue. National Elementary Principal, 1976, 55(6), 62-65.

Bronfenbrenner, Urie. The experimental ecology of education. Education Researcher, 1976, 5(9), 5-15.

Bronfenbrenner, Urie. The experimental ecology of education. Teachers College Record, 1976, 78(2), 157-204.
In this paper, the prevailing approaches to educational research (i.e., contrived experiments) were called into question. In addition, the author proposed a new approach to method, theory, and substance--natural experiments.

Bronfenbrenner, Urie. The experimental ecology of education. 1976. (ERIC Document Reproduction Service No. ED 131 025).
The author suggested that research be carried out in real-life settings and that it focus on systems. He included twenty propositions which define the properties of such ecological systems investigations.

Bronfenbrenner, Urie. Reality and research in the ecology of human development. JSAS Catalog of Selected Documents in Psychology, 1976, 6, 94.

Bronfenbrenner, Urie. The challenge of social change to public policy and developmental research. 1975. (ERIC Document Reproduction Service No. ED 113 056).
The social changes that have taken place in the American family during the last twenty-five years were documented, and it was suggested that these changes have created the need for new directions in both public policy and developmental research. The key to correcting these problems was cited to be the development of support systems for families and research which examines development in context.

Bronfenbrenner, Urie. The ecology of human development in retrospect and prospect. 1975. (ERIC Document Reproduction Service No. 128 387).
The author discussed the requirements of an ecological approach to human development, in which the person, the environment, and the relations between them be conceptualized in terms of systems

and subsystems. In addition, the author suggested that two or more environmental settings can and should be included in the investigation. Finally, the author proposed that the experiment be initiated by trying to change one of the environmental elements in order to get an idea of the delicate balance between the developing organism and its surround.

Bronfenbrenner, Urie. Is early intervention effective? Teachers College Record, 1974, 76(2), 279-303.
Based upon reviews of early intervention studies in the area of poverty and human development, the author concluded that such efforts succeed only with sustained family involvement. In addition, ecological interventions must provide parents with a basis for such involvement. The author suggested interventions which would prepare people for parenthood and provide support to parents throughout the life cycle.

Bronfenbrenner, Urie. The origins of alienation. Scientific American, 1974, 231(2), 53-61.
The author indicated that evolutionary changes in the structure of the American family have led to an increase in the estrangement between young people and adults in the United States. Societal components that have contributed to this alienation were discussed, and possible changes to reinvolve children and adults in a meaningful fashion were suggested.

Bronfenbrenner, Urie. Is early intervention effective? Day Care and Early Education, 1974, 2(2), 14-18.
The results of follow-up studies on the efficacy of preschool programs were synthesized. A major reorientation in the design of intervention programs and in the training of personnel was suggested.

Bronfenbrenner, Urie. Studies in group upbringing. Final report. 1974. (ERIC Document Reproduction Service No. ED 093 796).
This report described an ongoing research project designed to investigate the joint impace of family, peers, teachers, and professional upbringers on the socialization of children in Israel. Settings investigated included kibbutzim, cities, and moshavim.

Bronfenbrenner, Urie. A report on longitudinal evaluations of preschool programs. Volume II: Is early intervention effective? 1974. (ERIC Document Reproduction Service No. ED 093 501).
Long-term studies of preschool programs were reviewed in order to assess the impact of preschool intervention. Concepts considered included intellectual development, program components, and characteristics of children.

Bronfenbrenner, Urie. Who cares about America's children? In F. Rebelsky & L. Dorman (Eds.), Child Development and Behavior. (2nd ed.). New York: Alfred A. Knopf, 1973.
It was proposed that America's neglect of its children has become a serious national problem. Suggestions for combating this problem were provided.

Bronfenbrenner, Urie. An emerging theoretical perspective for research in human development. 1973. (ERIC Document Reproduction Service No. ED 081 491).
A new theoretical framework for research in human development was discussed, and this perspective was contrasted with the classical laboratory experiment. Four sets of properties defining the emerging framework were included.

Bronfenbrenner, Urie. Childhood: The roots of alienation. National Elementary Principal, 1972, 52(2), 22-29.

Bronfenbrenner, Urie. The psychological costs of quality and equality in education. In A. Lightfood (Ed.), Inquiries into the social foundations of education: Schools in their urban setting. Chicago: Rand McNally, 1972.

Bronfenbrenner, Urie. Who cares for America's children? Young Children, 1971, 26(3), 157-163.
It was suggested that radical reforms, including the reordering of national priorities, are needed to provide a human environment for children. Suggestions for making the major societal institutions more family- and child-oriented were offered

Bronfenbrenner, Urie. Day care USA: A statement of principles. Peabody Journal of Education, 1971, 48(2), 86-95.

Bronfenbrenner, Urie. Two worlds of childhood: U.S. and U.S.S.R. New York: Russell Sage Foundation, 1970.
The author presented a comparative examination of the socialization process in the Soviet Union and the United States. The author indicated that the major difference between the two cultures is the contrast between a collective-centered and a family-centered system of child rearing, and he concluded that the Soviet approach to socialization has some significance for reorientation in the United States.

Bronfenbrenner, Urie. Motivational and social components in compensatory education programs: Suggested principles, practices, and research designs. 1968. (ERIC Document Reproduction Service No. ED 024 464).
The author discussed the development of cognitive competence and constructive patterns of motivation and behavior in the disadvantaged child. In addition, the author proposed examples of innovative and unconventional research that could be undertaken and which might substantially advance progress in education of the disadvantaged.

Bronfenbrenner, Urie. Memo--comments on the Wolff and Stein study. 1967. (ERIC Document Reproduction Service No. ED 015 029).
The author challenged conclusions of the Wolff and Stein study of Head Start children. In turn, he suggested an alternative to the previous conclusions, as he proposed that children from deprived homes are able to compete with classmates from better-advantaged families as a result of their Head Start enrichment.

Bronfenbrenner, Urie. The psychological costs of quality and equality in education. 1967. (ERIC Document Reproduction Service No. ED 113 405).
The author suggested that the most immediate, overwhelming, and stubborn obstacles to achieving quality and equality in education lie as much in the character and way of life of the American Black as in the indifference and hostility of the white community toward blacks. Countermeasures for overcoming these obstacles were suggested.

Bronfenbrenner, Urie. The psychological costs of quality and equality in education. Child Development, 1967, 38(4), 909-925.

THE RELATIONSHIP BETWEEN AN ECOLOGICAL APPROACH TO THE STUDY OF HUMAN DEVELOPMENT AND AN ECOLOGICAL THEORY OF TEACHING

A. The Impact of Teacher Characteristics on Variables Related to Education/Teaching

Alker, Henry A. and Wohl, Jonathan. Personality and achievement in a suburban and an inner city school. Journal of Social Issues, 1972, 28(4), 101-114.
This article compared three approaches to predicting academic achievement. A proposed integration of the findings was presented which included both intellectual achievement and moral conformity.

Appel, George D. A study of the relationships of student ratings of teachers, achievement gains and the dogmatism of teachers and students. Dissertation Abstracts International, 1974, 34(8-A Pt. 1), 4853.

Aspy, David N. and Buhler, June H. The effect of teachers' inferred self concept upon student achievement. Journal of Educational Research, 1975, 68(10), 386-389.
This study investigated the relationship between teachers' levels of inferred self-concept and the cognitive growth of their students. Results indicated, in turn, that these concepts are positively related.

Baker, Margaret N. The relationship between a teacher's creative behavior and her ability to recognize the creative behavior of her students in the classroom. Dissertation Abstracts International, 1974, 34(11-B), 5645-5646.

Banathy, Bela H. and others. The effects of learned leadership/membership skills on work performance. Final report. 1976. (ERIC Document Reproduction Service No. ED 135 939).
Findings of the project indicated that administrators, teachers, and students appreciated the need for and value of instruction in the cooperative group interactive skills area, although the skills in this area were difficult to teach. In addition, it was indicated that extended research and development would be of significant value. Appendices, summary charts, and implications of the Cooperative Group Interaction Skills (CGIS) curriculum were included.

Barrett, David R. Student achievement as related to student and teacher personal dominant motive. Dissertation Abstracts International, 1976, 36(9-A), 5931-5932.

Black, D. B., Bunyan, L. W., and Black, E. K. The effects of senior students as teacher aides with special reference to teaching behavior. Alberta Journal of Educational Research, 1976, 22(2), 140-148.
This study compared the teaching behavior of elementary teachers who had been assigned teacher aides with that of teacher without aides. The results indicated that the presence of a teacher aide in the classroom did not result in a change in observable teaching behaviors, nor did it result in a difference between the behaviors of teachers with and without aides.

Boak, R. Terrance and Conklin, Rodney C. The effect of teachers' levels of interpersonal skills on junior high school students' achievement and anxiety. American Educational Research Journal, 1975, 12(4), 537-549.
In this study it was hypothesized that students of teachers having a high level of interpersonal skills would obtain significantly higher achievement scores and lower anxiety scores than would students of teachers with low levels of interpersonal skills. Results supported the hypothesis for only specific grades and classes, however.

Boardman, Billie B. The relationship of self-concept of teachers in selected academic areas to their students' achievement. Dissertation Abstracts International, 1975, 36(5-A), 2706.

Brandt, Larry J., Hayden, Mary E., and Brophy, Jere E. Teachers' attitudes and ascription of causation. Journal of Educational Psychology, 1975, 67(5), 677-682.
This study investigated attitudes toward students and assignment of responsibility for student performance by undergraduates acting as experimental teachers. Results suggested that teachers' attitudes and assignment of responsibility was strongly affected by student performance, while ascribed student motivation affected only teachers' attitudes.

Brown, Joseph L. Effects of the creative thinking ability of teachers on their educationally handicapped students' creative thinking abilities: A longitudinal study using the Torrance test of creative thinking. Dissertation Abstracts International, 1976, 37(3-A), 1397.

Buck, Camellus W. A study of teacher-student characteristics in selected New Mexico senior high schools. Dissertation Abstracts International, 1975, 36(3-A), 1422-1423.

Burtley, Nathel. A comparison of teacher characteristics and student achievement in individually guided education (IGE) and traditional inner city elementary schools. Dissertation Abstracts International, 1975, 35(9-A), 5712-5713.

Cantrell, Robert P., Stenner, A. Jackson, and Katzenmeyer, William G. Teacher knowledge, attitudes, and classroom teaching correlates of student achievement. Journal of Educational Psychology, 1977, 69(2), 172-179.
This study examined relationships among three teacher behavioral knowledge and attitude profile groups, the classroom verbalization patterns of teachers within each profile group, and differential residual achievement gains made by the teachers' first-grade pupils. Results showed that first-grade teachers characterized by high knowledge of behavioral principles on the ASCI were more verbally positive with their classes and produced significantly higher residual achievement gain results for Low-IQ (IQ range 50-89) and middle-IQ (IQ range 90-104) pupils than did first-grade teachers characterized by low knowledge of behavioral principles and either traditional authoritarian or traditional nonauthoritarian attitude profiles.

Clark, Christopher M. The effects of teacher practice on student learning and attitudes in small group instruction. Dissertation Abstracts International, 1976, 36(12-A), 7943.

Cornbleth, Catherine and others. Expectations for pupil achievement and teacher-pupil interaction. Social Education, 1974, 38(1), 54-68.
The results of research on differential teacher behavior with senior high students of both high and low achievement expectation were discussed.

Crawford, Alan N. Aides to career education, 1975-76: An Evaluation. 1976. (ERIC Document Reproduction Service No. ED 136 071).
The Aides to Career Education (ACE) Program was discussed, and results were presented from the 1975-76 program evaluation. Findings indicated that the program was effective in meeting its overall goal of increasing individual assistance to disadvantaged students, and the greatest efforts of the aides were in the area of direct assistance to students. Other findings, data analyses, and recommendations were included.

Cunningham, William G. A model for matching teaching style in elementary schools. Journal of Instructional Psychology, 1976, 3(2), 11-19.
The author noted that there has been little progress in the development of methodology by which students are assigned to teachers, even though recent studies of trait-treatment interaction support the belief that teaching effectiveness might be improved if a class were composed of students similar to those who have achieved success with a particular type of teacher in the past. In the present study, four types of teachers and students were identified, and findings showed that all student types seemed to have at least one type of teacher with whom they achieved significantly greater success. In turn, findings were used to develop a scheduling model.

Davis, E. Dale. Motivating secondary school students. 1977. (ERIC Document Reproduction Service No. ED 137 263).
This study was designed to determine methods that secondary school teachers could use to become more effective in the area of student motivation. A review of the literature on the subject of student motivation was included. It was concluded that capable and experienced teachers have many similar traits, characteristics, and approaches to motivating their pupils.

Designing a campus plan for quality education. Final report, Part II. 1972. (ERIC Document Reproduction Service No. ED 079 955).
This report described the design of an educational program for creative, self-discovering students. The program was organized around individualized instruction and included the development of Learning Activity Packages (LAP). Program evaluation results were included in the report, as well as plans for dissemination across the country.

Doob, Heather S. Summary of research on open education. (An ERS research brief). 1974. (ERIC Document Reproduction Service No. ED 087 093).
In this document the effects of open education on student achievement, student attitudes and behavior, the role and attitude of teachers and administrators, parent and community, and school costs were investigated. In addition, the problem of student transition from an open to a traditional school was considered. An estensive bibiliography on open education was included.

Duckworth, Joseph Battersby. The effect of instruction in general semantics on the critical thinking of tenth and eleventh grade students. 1968. (ERIC Document Reproduction Service No. ED 040 188).
This study examined the effects of instruction in general semantics on the critical thinking of secondary students. Because the control groups improved as much in critical thinking as the experimental groups, however, the lessons in general semantics alone were not considered to be a significant factor in the improvement of critical thinking. In addition, the teacher was considered to be an important factor in such improvement.

Duffey, James B. The effects of authoritarian and democratic teaching styles and students' trait anxiety on the short term recall of academic material. Dissertation Abstracts International, 1974, 35(6-A), 3512-3513.

Edeburn, Carl E. and Landry, Richard G. Teacher self concept and student self concept in grades three, four, and five. Journal of Educational Research, 1976, 69(10), 372-375.
This study examined the theory that a teacher's level of self-concept is related to the development of selected aspects of self-concept in students in grades three, four, and five. Results suggested that teacher self-concept had an effect upon the development of the students' self-concepts in the case of two of the four dimensions tested.

Eiseman, Jeffrey W. and Lippitt, Peggy. Olders-youngers project evaluation: Covering the first semester. 1966. (ERIC Document Reproduction Service No. ED 016 924).
The evaluation discussed results of a cross-age teaching project, in which older student provided individual attention to younger students. It was concluded that teachers were provided with a new way to cope with individual pupil needs, and positive shifts in learners' academic achievement and attitudes were noted.

England, Thomas H. The interactive effects of teacher personality, teaching approach and pupil personality on the academic achievement, social development and cognitive development of elementary school students. Dissertation Abstracts International, 1976, 36(12-B, Pt. 1), 6376-6377.

Evans, Charles L. Trimester assessment II, 1971-72. 1972. (ERIC Document Reproduction Service No. ED 083 262).
The report supplied evaluative data about the Fort Worth Trimester Plan. The focus of the evaluation included academic achievement, teaching styles, and teacher assessment of the program.

Fish, Marion C. and Loehfelm, Elizabeth E. Verbal approval: A neglected educational resource. Teachers College Record, 1975, 76(3), 493-498.
This article cited studies indicating that teachers' verbal approval is an incentive to appropriate social and academic behavior by pupils; whereas, inappropriate social behavior is reduced by withholding attention. It was suggested that teacher approval should be used more frequently and thoughtfully, such as more frequent approval for social and academic behavior, as should withholding attention for inappropriate social behavior.

Follman, John. Student ratings and student achievement. JSAS Catalog of Selected Documents in Psychology, 1974, 4, 136.

Fox, Robert S. and others. Pupil-teacher adjustment and mutual adaptation in creating classroom learning environments. Final report. 1964. (ERIC Document Reproduction Service No. ED 068 416).
This analysis focused on patterns of cooperation or alienation among parents, teachers, peers, and individual pupils which create learning cultures of differing degrees of productivity. The investigation focused, therefore, on an analysis of the dynamics of the learning situations in a variety of public school elementary and secondary classrooms.

Gallo, Delores. The traits and techniques of creative production. Dissertation Abstracts International, 1973, 34(2-A), 662-663.

Good, Thomas L., Biddle, Bruce J. and Brophy, Jere E. Teachers make a difference. New York: Holt, Rinehart & Winston, 1975. Based upon findings from educational research and actual experiences, this study attempted to document the fact that teachers and schools can and do make a difference in the educational progress of students.

Halperin, Marcia S. Effects of first-grade teachers' goals and practices on students' perceptions of school. Dissertation Abstracts International, 1976, 36(12-B, Pt. 1), 6354-6355.

Halpin, Gerald, Goldenberg, Ronald, and Halpin, Glennelle. Are creative teachers more humanistic in their pupil control ideologies? Journal of Creative Behavior, 1973, 7(4), 282-286. Results indicated that creative students were less authoritarian in their pupil control orientation than less creative students.

Hammer, George J. An experimental study of prolonged teacher silence. Resources in Education, 1976, (15), 73-77.
Results of this study indicated that prolonged periods of teacher silence can improve learning, and possible reasons were discussed.

Hooks, Mose Y. A study of the educational, behavioral and psychological characteristics of teachers as motivators for creative and less creative students. Dissertation Abstracts International, 1973, 34(3-A), 1026.

Keeves, J. P. Can teachers make a difference? Home environment and school study report 1974:1. 1974. (ERIC Document Reproduction Service No. ED 121 912).
This study was conducted in Australia and examined the contributions of selected teaching behaviors to the achievement, attitudes, and attentiveness of students. Seven process variables associated with the classroom environment were emphasized, and these variables guided the selection of items of teaching behavior to be observed.

King, A. J. C. and others. Approaches to semestering. Secondary school organization: Some current alternatives. 1977. (ERIC Document Reproduction Service No. ED 140 399).
This study compared the effects of semestering, trimestering, half-credit semestering, and mixed organizational models. Results indicated that the way in which an innovation was implemented in a school system had more effect on staff and student satisfaction than did the nature of the organizational change.

Krause, Dorothy Loretta. A study of present practices and attitudes concerning the letter grading system of secondary school language arts teachers and administrators of Oahu, Hawaii. 1969. (ERIC Document Reproduction Service No. ED 046 929).
This study examined the attitudes and opinions of secondary school language arts teachers and administrators on the island of Oahu to the traditional letter grading system and their uses of it. Discussions of the purpose of a grade, grading standards, and alternative grading systems were included in the report. It was concluded that the majority of administrators and teachers preferred to report to parents and students in terms of goals attained for a specific course, rather than in terms of letter grades.

Laosa, Luis M. and others. Cognitive and personality characteristics of high school students as predictors of the way they are rated by their teachers: A longitudinal study. Journal of Educational Psychology, 1975, 67(6), 866-872.
It was indicated that teacher ratings of students had differential meanings, according to the grade level obtained by the students. Possible explanations of the findings were provided.

Lawrenz, Frances. The relationship between science teacher charateristics and student achievement and attitude. Journal of Research in Science Teaching, 1975, 12(4), 433-437.
The results of this study indicated significant relationships between nine teacher variables and three measures of student achievement and attitude.

Macias, Cenobio C. Programmed learning as used in the Tacoma public schools. 1969. (ERIC Document Reproduction Service No. ED 035 333).
The "Spanish for Communication" (SFC) materials for foreign language instruction were described in this report. The materials were seen as being instrumental in effecting changes in teacher attitude, methodology, and student performance.

Marrinan, Burnae M. Teacher preferences, creative thinking abilities, academic aptitude and performance, self-concept, and peer judgments of creativity and teacher preferences: A study of relationships. Dissertation Abstracts International, 1975, 35(12-A, Pt. 1), 7724-7725.

McConnell, John W. Relationships between selected teacher behaviors and attitudes/achievements of algebra classes. 1977. (ERIC Document Reproduction Service No. ED 141 118).
This study related specific teacher behaviors to measures of pupil achievement and attitudes in ninth-grade algebra classes. Explanations were offered for the various results of the study.

McCuiston, Ronald S. An investigation of the relationship between teachers' effectiveness and their productive thinking. Dissertation Abstracts International, 1975, 35(8-A), 5151-5152.

McGinty, John. Project Echo: Evaluation of the implementation and replication of a child service demonstration project for secondary students with learning disabilities. 1976. (ERIC Document Reproduction Service No. ED 132 764).
The results of Project Echo, a research project concerning a supplementary instructional program for secondary level learning disabled students were presented. The findings indicated that the effects of Project Echo intervention were positive and that the development of additional instructional minimodules in more subject areas should be considered. Sample data collection forms were included. Information was also provided concerning the three major project components, the teacher training materials, the five replication sites in Texas, and the evaluation design.

McGuiness, Thomas P. and Masters, James R. Research and administering for change. A case study. 1973. (ERIC Document Reproduction Service No. ED 079 813). The study described involved a demonstration of the role of research in administrative decision-making in relation to change in an education system. In particular, the research focused on elementary and secondary teacher and student attitudes and on achievement of elementary students.

Melograno, Vincent J. Effects of teacher personality, teacher choice of educational objectives, and teacher behavior on student achievement. Dissertation Abstracts International, 1972, 33(4-A), 1491-1492.

Milwaukee Bilingual Education Program, 1971-1972. Evaluation report. 1972. (ERIC Document Reproduction Service No. ED 072 077).
The focus of this report was the Milwaukee Bilingual Educational Program. A discussion of the results included the topics of pupil outcomes, goals, objectives measured, classroom procedure, evaluation procedure, findings, and conclusions.

Murray, Howard B. and Staebler, Barbara K. Teachers' locus of control and student achievement gains. Journal of School Psychology, 1974, 12(3), 305-309.
It was reported in this study that both male and female students, regardless of their own locus of control, gained more on an achievement measure under teachers with an internal locus of control, as opposed to those with an external locus of control.

Nash, B. Chris and McQuistin, Alan. Sharing school facilities with the trainable retarded: A study of sharing secondary school facilities with senior trainable mentally retarded (age 14-21). 1974. (ERIC Document Reproduction Service No. ED 139 112).
This study examined the effects of the sharing of facilities between a regular high school and a school for senior trainable

Nash, B. Chris and McQuistin, Alan (1975), continued:
mentally retarded students. Results supplied no evidence that the semi-integrated school was inferior to the segregated setting in terms of academic, social, or self-concepts of the retarded students or that regular students benefited in learning to live with handicapped people. In addition, the authors offered suggestions for developing future integration programs.

Nugaard, Debra D. Evaluations of year-round school programs. (An ERS research brief). 1974. (ERIC Document Reproduction Service No. ED 087 092).
This publication involved reviews of evaluative studies conducted by six year-round programs. Such evaluations included the type and geographic location of the program, school characteristics, program implementation, student achievement, and the attitudes of the community, parents, students, and teachers toward the program.

Ober, Steven L. The relationship between teachers' characteristics and students' academic achievement in a middle class community. Dissertation Abstracts International, 1974, 34(10-A), 6401-6502.

O'Reilly, Robert. Classroom climate and achievement in secondary school mathematics classes. 1975. (ERIC Document Reproduction Service No. ED 107 473).
It was indicated that the psychosocial climate of a classroom had an effect on the learning of students. It was suggested, therefore, that teachers and supervisors should monitor the classroom climate and develop techniques for its improvement.

Parks, David J. Research on year round education. 1974. (ERIC Document Reproduction Service No. ED 090 662).
This research literature review focused on the implementation of year-round programs in school districts. A model was developed to present the systematic impact of changes in school calendars on various societal institutions.

Peng, Samuel S. Expectations, instructional behavior and pupil achievement. Dissertation Abstracts International, 1974, 35(3-A), 1508.

Penick, John E. The effects of two patterns of teaching on aspects of verbal and figural creativity in fifth grade science students. Dissertation Abstracts International, 1974, 34(7-A), 4029.

Planning and operation of an educational park. Final report. 1971 (ERIC Document Reproduction Service No. ED 070 201).
The intended outcome of this project was the establishment of a downtown center in Grand Rapids, Michigan, which would offer specialized courses for junior and senior high school students

Planning and operation of an educational park (1971), continued:
of Grand Rapids. The report documented results of a three-year pilot study, including data on students' perceptions, faculty perceptions, parents' perceptions, and actual effects of participation in the program on students.

Posthuma, Allan B. and Posthuma, Barbara W. Effect of faculty personality on occupational therapy students. American Journal of Occupational Therapy, 1973, 27(8), 480-483.
It was hypothesized that those students whose personality profiles most resembled the faculty would achieve greater academic success than students with incongruent profiles and that as the academic year progressed, there would be a shift in the students' profiles toward those of the faculty. The hypotheses were not supported, however, and explanations for the findings were discussed.

Prendergast, Mary A. and Binder, Dorothy M. Relationships of selected self-concept and academic achievement measures. Measurement and Evaluation in Guidance, 1975, 8(2), 92-94.
It was determined how various self-concept measures relate both to each other and to the academic achievement of the ninth grade subjects.

Riechmann, Sheryl W. The relationship between student classroom-related variables and students' evaluations of faculty. Dissertation Abstracts International, 1975, 35(8-B), 4151-4152.

Rogers, Carl R. Questions I would ask myself if I were a teacher. Education, 1974, 95(2), 134-139.
In this article, the author placed himself in the role of a teacher and, in turn, asked himself questions related to the humanizing of education.

Rosemond, Bruce E. Teacher behavior and teacher expectations as they relate to pupil achievement. Dissertation Abstracts International, 1976, 37(3-A), 1473.

Ryan, Doris W. The education of adolescents in remote areas of Ontario. 1976. (ERIC Document Reproduction Service No. ED 141 005).
In this study, an examination was made of the psychological and sociological factors affecting the educational progress of secondary students. A model was, in turn, developed which presented all of the major factors hypothesized to contribute to the educational progress of students from remote areas of Ontario. Results of a study which employed the model were discussed.

Schmuck, Patricia and Schmuck, Richard. Formal and informal aspects of classroom life: Can they be harmonized for academic learning? History and Social Science Teacher, 1976, 12(2), 75-80.
In this article, it was argued that informal group processes in the classroom do make a difference in the accomplishment of formal learning goals. Suggestions for legitimizing communications about student feelings and for giving to students formal responsibility for influencing learning activities were provided.

Seeman, Alice Z., and Seeman, Melvin. Staff processes and pupil attitudes: A study of teacher participation in educational change. Human Relations, 1976, 29(1), 25-40.
The relationship between involvement of teachers in school management and their pupils' school-relevant attitudes were examined. Results indicated that it is not the teachers' personal characteristics (e.g., teaching experience or dogmatism) which were crucial in developing favorable student attitudes; instead, the teachers' organizational participation was the critical factor.

Selvage, Roy L. College students' preferred instructor characteristics and their ratings of instructor performance. Dissertation Abstracts International, 1975, 35(12-A, Pt. 1), 7663P.

Siegel, Martin A. An experimental investigation of teacher behavior and student achievement in the Distar Instructional System. Dissertation Abstracts International, 1974, 34(12-A, Pt. 1), 7630-7631.

Simon, Roger I. and others. The development and evaluation of an alternative high school: A report on S.E.E. (School of Experimental Education). Phase 2. 1973. (ERIC Document Reproduction Service No. ED 111 053).
This progress report provided the conclusions of a two-year study of SEE (School of Experimental Education), an alternative high school. Students' adjustment, achievement, and growth patterns, as well as students', parents', and teachers' perceptions of the school were included. The implications of the findings for SEE's future directions were offered.

Smith, W. Flint and Littlefield, Lael. The electronic classroom, the broadcast and the record-playback language laboratory: Their contribution to achievement in beginning language learning. 1969. (ERIC Document Reproduction Service No. ED 040 623).
This research examined the results of various methods of language instruction and the role which interests and attitudes play in second-language learning.

Stanionis, Victor A. An examination of the relationship between the ability of students to solve applied problems in mathematics and certain characteristics of the students, their teachers, and schools. Dissertation Abstracts International, 1975, 36(5-A), 2512-2513.

Stemnock, Suzanne K. The four-day school week. 1975. (ERIC Document Reproduction Service No. ED 113 818).
Seven program plans for dealing with overcrowded schools were presented in this report. Additional benefits of the programs were discussed, and an overview of the research on the relationship between length of instructional time and student achievement was included.

Stevens, John T. A study of the relationships between selected teacher affective characteristics and student learning outcomes in a junior high school science program. Dissertation Abstracts International, 1973, 33(7-A), 3430.

Sullivan, Timothy J. and Olson, Arthur H. Differences between personal and interpersonal values of elementary and secondary education majors. 1974. (ERIC Document Reproduction Service No. ED 070 226).
In this study the personal and interpersonal values held by junior and senior college students in elementary and secondary education programs were identified and compared. The results indicated significant differences between elementary and secondary majors, as well as between junior and senior students.

Susman, Marilyn I. Ideal teacher behavior: A comparative study of the perceptions of secondary school students. Dissertation Abstracts International, 1974, 34(9-A, Pt. 1), 5646-5647.

Theus, Robert W. An analysis of teacher ability to identify creativity in students and themselves. Dissertation Abstracts International, 1974, 34(9-A, Pt. 1), 5608.

Toback, Sheldon G. The relationship among teacher's sex, academic achievement, school conduct ratings, self-concept and masculinity-femininity of interest patterns of seventh grade students. Dissertation Abstracts International, 1973, 34(6-A), 3162-3163.

Trinchero, Robert L. Three technical skills of teaching: Their acquisition, stability, and effects on student performance. Dissertation Abstracts International, 1976, 36(9-A), 5961.

Turley, James David. Attitudes of Rhode Island secondary school English teachers toward certain objectives in the teaching of English. 1969. (ERIC Document Reproduction Service No. ED 048 264).
The relationships between objectives for the teaching of English, teachers' attitudes toward these objectives, and various personal and professional characteristics of the teachers were examined.

Turley, James D., (1969), continued:
It was concluded that teachers' acceptance of a majority of the objectives were related to one or more of the professional characteristics.

Vanderveer, Richard B. Moral education: But how will it play in Peoria? 1976. (ERIC Document Service No. ED 123 175).
Interviews with a sample of teachers and parents indicated that the groups supported the notion that schools should play a role in moral education, although the groups denied the increasing necessity for schools to perform the functions of other institutions, such as the home and the church. Parent groups, in turn, advocated some type of partnership between home and school as ways to strengthen moral education, and it was felt that moral education should be a specific part of the curriculum--taught by specially trained teachers.

Wilen, William W. The preferences of American history students for the cognitive levels of teachers' verbal questioning behavior and the relationship of preferences to achievement. 1977. (ERIC Document Reproduction Service No. ED 138 533).
The paper discussed high school students' attitudes toward teachers' verbal questioning behavior and assessed the relevance of students' preferences to test score gains. Findings indicated that students did not show a preference for higher level questions and that those students who preferred their teachers to ask low level questions performed best on tests incorporating low level questions. Implications of the results were discussed.

Williams, Trevor. Teacher discrimination and self-fulfilling prophesies. 1975. (ERIC Document Reproduction Service No. ED 106 185).
This study tested and extended the argument that teachers engage in subtle forms of discrimination in the classroom. In addition, a model was provided which offered a representation of the main components of the self-fulfilling prophesy argument. Results indicated that no evidence of socioeconomic discrimination was found, although sex and ability influences on teacher expectations were demonstrated. Despite the data, however, no support to the main argument was offered.

Young, Edith Mae. Effect of teacher enthusiam on vocational business education student achievement. 1973. (ERIC Document Reproduction Service No. ED 085 473).
This study investigated whether teachers trained to teach enthusiastically had a significant effect on the achievement of vocational business education students. It was concluded, however, that enthusiasm had no real effect on the students' achievement but that teachers could be trained to teach enthusiastically.

B. The Student-Teacher Relationship

Aldridge, Hal. Student contracts. Forum, 1971, 10(1), 4-7.
This article concerned the nature of student-teacher contracts related to academic work to be performed by the student and evaluated by the teacher. Included in the discussion were the nature of contracts, evaluation procedures, instructional materials, community attitudes, and the individualization of instruction.

Allen, Rodney F. But the earth abideth forever: Values in environmental education. (ERIC Document Reproduction Service No. ED 099 300).
Based upon Kohlberg's stages of moral development, this article described how environmental educators might incorporate values education into their classrooms. Values objectives and specific teaching processes were discussed, as well as instructional models and processes.

Bulock, Jeffrey W. and Beebe, Mona J. Reading in the structure of scholastic performance. 1976. (ERIC Document Reproduction Service No. ED 134 982).
It was hypothesized that reading is an indicator of the general level of an individual's thinking and reasoning processes. A social-psychological model of the structure of scholastic performance was employed. Results supported the hypothesis.

Castelli, C. D. and Witherspoon, R. Creativity: The magic word. Impact on Instructional Improvement, 1974, 9(2), 30-34.
It was argued that most teachers wish to be creative and produce creative responses in their students, but that teachers do not know how to be truly creative. Some of the problems with creativity encountered by teachers were outlined.

Cognetta, Philip. Deliberate psychological education: A high school cross-age teaching model. Counseling Psychologist, 1977, 6(4), 22-24.
An alternative role for the school counselor was defined. In this role, the counselor becomes responsible for developing curricula and programs designed to positively affect the personal development of students.

Davis, John E. and others. The impact of semestering on selected secondary schools in Ontario. Semestering in secondary schools. 1977. (ERIC Document Reproduction Service No. ED 140 488).
The effects of full-credit semestering, half-credit semestering, and trimestering on the intellectual, social and emotional growth of students was examined. Four major areas were considered, including the use of instructional time, interpersonal relationships, student achievement, and student motivation.

Focus: A successful high school program for dealing with disaffected youth. 1975. (ERIC Document Reproduction Service No. ED 118 714).
The Focus program, which deals with students who perform well below their capacity socially and/or academically, was described. The main goal of Focus was to decrease alienation among these youth, the staff, and the community. The philosophical components of Focus were defined as caring, the setting of expectations, structure, individualization, responsibility, reinforcement, and evaluation. A state-funded work experience, another aspect of the project, was also described.

Galbraith, Ronald E. and Jones, Thomas A. Teaching for moral reasoning in the social studies: A research report. Counseling Psychologist, 1977, 6(4), 60-63.
The authors presented an overview of the Kohlberg theory of moral development. In addition, curriculum materials, teaching processes, and techniques for teacher training used in a values education project were described.

Glasheen, John D. and others. Student adaptation to high school social groupings and normative environments. 1977. (ERIC Document Reproduction Service No. ED 143 929).
School social systems and social groupings were considered, as the research examined the social and social-psychological environments both between schools and within school socio-economic, ethnic, and curricular environments. In addition, student adjustment behaviors were examined.

Hawke, Sharryl and Fox, Robert F. Cooperative group process. Profiles of Promise 19. 1973. (ERIC Document Reproduction Service No. ED 087 687).
This project provided an opportunity for students in an American History class in Melbourne, Florida, to experience the reality of interpersonal interaction and small group cooperation in the classroom. It was indicated that the group participation approach required more effort on the students' part, increased peer group pressure, and resulted in higher attendance.

Kelly, Edward J. Our overcrowded schools: Current programs and future prospects. College Student Journal Monograph, 1976, 10(2), 1-14.
The impacts of secondary school overcrowding on student attitudes, behavior, and academic performance and on student-teacher-administrator interactions were investigated. Possible alternatives to school overcrowding were suggested.

Lewis, Paddy. Significant others, self-concept of ability, and achievement. 1973. (ERIC Document Reproduction Service No. ED 128 699).
It was proposed that significant others affect one's self-concept of academic ability which, in turn, affects one's

Lewis, Paddy (1973), continued:
achievement. Among other findings, it was indicated that defensive attitudes appeared to help protect self-concept, which was not found to affect achievement for defensive students.

Loney, D. E. Project design: An emerging curriculum concept. Elements of Technology, 1976, 7(1), 4-9.
Ontario's Project Design was described as an opportunity for students to contribute to the selection and design of a material object or system which they construct, test, and evaluate. Concepts involved were open-ended problems, creative thinking, service for others, group process, project management, and technical report writing.

Powell, Barbara Schieffelin. Intensive education: The impact of time on learning. 1976. (ERIC Document Reproduction Service No. ED 144 195).
This report considered whether intensive education, an approach in which students study one or two subjects a day for a concentrated number of weeks, is a valid alternative to the traditional class schedule. The strengths, values, and problems of intensive education were discussed, as were examples of various intensive education programs, the effects of intensive education on student learning, teacher roles and methods, and the student-teacher relationship.

Scott, Alvin Thomas. A study of the effects of planned classroom teacher verbal behavior and resulting classroom pupil verbal behavior on the achievement of classroom pupils. 1973. (ERIC Document Reproduction Service No. ED 118 353).
This study investigated the effects of planned classroom teacher verbal behavior and the resulting classroom pupil verbal behavior on the achievement of pupils. Results indicated a significant difference in the pupils' academic achievement.

Silbergeld, Sam and Manderscheid, Ronald W. Comparative assessment of a coping model for school adolescents. Journal of School Psychology, 1976, 14(4), 261-273.
Early adolescent students were involved in brief, interpersonal coping courses. It was concluded that, at the conclusion of the courses, students' interpersonal coping skills were improved.

Snooks, Lee and Long, Daniel. Project Basctop, E.S.E.A. Title III Evaluative report, 1975-1976. 1976. (ERIC Document Reproduction Service No. ED 139 555).
Project Bacstop (Better Acquisition of Cognitive Skills Through Outdoor Programming) was implemented to address some of the negative problems facing Northwestern Junior High School, a racially troubled school in Battle Creek, Michigan. Generally,

Snooks, Lee and Long, Daniel (1976), continued:
the project intended to reverse the racial separatism and improve the educational performance of the students. A higher level of biracial interaction and improved achievement were, in fact, the measured outcomes.

Torrance, E. Paul. Creativity. What research says to the teacher. (Series No. 28) 1969. (ERIC Document Reproduction Service No. ED 078 435).
In this report, creativity, its pattern of development, manifestations and methods of measurement, and creative learning were defined. Guidelines on how to provide opportunities for creative behavior, develop skills for creative learning, reward creative achievements, and develop a supportive classroom atmosphere were also discussed.

C. The Effects of Family Characteristics on Students and Schooling

Adler, Peter T. and Lotecka, Lynn. Drug use among high school students: Patterns and correlations. International Journal of Addictions, 1973, 8(3), 537-548.
A drug use survey was administered to 1600 high school students in three working class community high schools. A moderate relationship existed between a student's drug use and parental use, between student use and severity of personal problems, and between student use and a negative view of the world. Other relationships involved family emotional climate, peer groups, and the mass media.

Anderson, James G. and Evans, Francis B. Family socialization and educational achievement in two cultures: Mexican-American and Anglo-American. Sociometry, 1976, 39(3), 209-222.
This study examined variations in family patterns within two ethnic groups and determined the effects of these practices on students' achievement values, self-concepts, and educational achievement. In addition, the effects of parental independence training on students' academic achievement were considered.

Brantley, Dale. Family stress and academic failure. Social Casework, 1969, 50(5), 287-290.
This study examined the success or failure of counseling with teenagers based upon their functioning in three problem areas: parent-child relationships, academic achievement, and social adjustment. It was determined, as well, that parental attitudes, the degree and duration of family pathology, and counseling participation had a significant impact on the results of counseling.

Edwards, William J. An investigation of the relationship between academic achievement and the quality of the parent-child relationship from a Rogerian frame of reference. Dissertation Abstracts International, 1976, 36, 5820A.

Gecas, Viktor, Calonico, James M., and Thomas, Darwin L. The development of self-concept in the child: Mirror theory versus model theory. Journal of Social Psychology, 1974, 92(1), 67-76.
The results of the study indicated that the child's self-concept was more closely related to his parents' perceptions of him than to his parents' own self-concepts. In addition, both boys and girls tended to model the father more than they did the mother.

Hann, Norma, Langer, Jonas, and Kohlberg, Lawrence. Family patterns of moral reasoning. Child Development, 1976, 47(4), 1204-1206.
In this study of intrafamilial patterns of moral reasoning, it was determined that husbands' and wives' moral stages were positively and modestly related. Siblings' moral stages, on

Hann, Norma, Langer, Jonas, and Kohlberg, Lawrence (1976), continued: the other hand, were independent of each other. Some positive relationships were indicated between parents' and sons' moral stages.

Keller, Monika. Development of role-taking ability: Social antecedents and consequences for school success. Human Development, 1976, 19(2), 120-132.
In this study, perceived supportiveness and severity of mother and father were found to relate to social-cognitive ability, although these relationships varied with sex of parent and role-taking task. Relationships between role-taking and educational attainment were also studied.

Marjoribanks, Kevin. Sibsize, family environment, cognitive performance, and affective characteristics. Journal of Psychology, 1976, 94(2), 195-204.
This study examined the extent to which relationships between sibsize and the cognitive and effective characteristics of children are influenced by family environments. Results suggested that if parents create differential learning environments for different siblings, then the behaviors of the siblings are likely to vary.

Marjoribanks, K. and Walberg, H. S. Family socialization and adolescent behavior: A canonical analysis. Alberta Journal of Educational Research, 1976, 22(4), 334-344.
The extent to which socialization practices in the family are related to cognitive and affective behavior was examined. It was indicated that for some academic subjects, the socialization practices accounted for a large percentage of the variance. The proposition that the processes of technical socialization and moral socialization in the family are interdependent was supported.

D. The Impact of Family Involvement on Education/Teaching

Beckman, Linda J. Teacher's and parent's attribution of causality for children's performance. Paper presented at the American Psychiatric Association meeting, Montreal, August 26-31, 1973. The developmental processes for teachers' and parents' biases about a child were examined, and the group differences between the biases were discussed.

Bittle, Ronald G. Improving parent-teacher communication through recorded telephone messages. Journal of Educational Research, 1975, 69(3), 87-95.
A daily recorded telephone message to parents was prepared by teachers of first graders. It was found that parents' use of such messages resulted in improved academic performance by the students.

Booth, Charlene Warren. Open wide the schoolhouse doors. 1974. (ERIC Document Reproduction Service No. 089 916).
A program was described which had been designed to bring information about the schools to members of a community in Texas. In addition, the program examined new ways of handling learning and behavior in the classroom, new ways of discussing problems common to parents and the school, and new ways of helping handicapped children when they enter school.

Castillo, Max. CDA developmental instruments: An assessment into competencies and skills needed by CDA's working with pre-school Mexican-American children. September 1973. (ERIC Document Reproduction Service No. ED 121 462).
The purposes of this project were to identify specific skills and behaviors needed by teachers working with preschool Mexican-American children and to develop an assessment process to evaluate the identified competencies, skills, and behaviors.

Darnell, Deane. A parent-teacher joint assessment of the entering and exiting kindergarten child. Paper presented at the annual meeting of the American Psychological Association, Washington, D.C., September 3-7, 1976.
This paper described the Parent-Teacher Kindergarten Student Assessment Instrument (PTKSA), the goal of which is to develop a pre-primary pupil profile and to serve as a vehicle for early home-school interaction.

Dusewicz, Russell A. The cognitively oriented prekindergarten: An ESEA Title III third year final report. October 1975. (ERIC Document Reproduction Service No. ED 121 450).
A cognitively-oriented urban prekindergarten program for children from low income families and/or one-parent families was described and evaluated.

Giannangelo, Duane M. Make report cards meaningful. Educational Forum, 1975, 39(4), 409-415.
An alternative model for reporting pupil progress was described. The model included computer-assisted reporting to parents about the strengths or weaknesses of their children.

Gabel, Harris, & others. Parent-teacher communication in relation to child academic achievement and self-concept. Peabody Journal of Education, 1977, 54(3), 142-145.
This report focused on research related to children with learning disabilities. The importance of communication between parents and teachers was discussed, as was the parents' active involvement with the school program.

Hess, Robert D. Effectiveness of home-based early education programs. Paper presented at the annual convention of the American Psychological Association, Washington, D.C., September 3, 1976.
Twenty-eight preschool intervention programs designed to train parents to prepare their children for school achievement were evaluated and summarized. Consistent outcomes of such interwoven programs included gains in children's IQ scores, positive academic performance, and positive parental behavior.

Kifer, Edward. The relationship between the home and school in influencing the learning of children. Paper presented at the pre-convention conference on research of the National Conference of Teachers of English, Chicago, November 23, 1976.
The influence of the home and the school environments on students' learning was discussed. Process variables, which indicate what actions are undertaken to encourage or support students' educational attitudes and achievement, were contrasted with status variables, such as parental education, parental occupation, and family socioeconomic status. A correlation was found between certain process variables in the home environment and academic achievement. It was suggested that further research consider the climate surrounding parent-child and student-teacher interactions.

Lewis, Paddy. Significant others, self-concept of ability and achievement. Paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 19-23, 1976.
It was proposed that significant others affect one's self-concept of academic ability which, in turn, affects achievement. The research findings supported the assumption, however, that defensive attitudes toward school protect one's self-concept.

McAdoo, Harriette Pipes. Components of educational achievement and mobility in black families. Paper presented at the annual meeting of the American Educational Research Association, New York, April 3-8, 1977.
The hypothesis that there are no differences in measured intelligence between ethnic and racial groups when socioeconomic factors

McAdoo, Harriette Pipes, (1977), continued:
and childhood health care are equalized was investigated. It was concluded, based upon results of interviews with Black parents, that the economic status of Blacks must be improved if their academic performance is to improve.

McDaniel, Ernest. Design of a longitudinal study of educational effects. Paper presented at the annual meeting of the American Psychological Association, New Orleans, September 1974.
A longitudinal study of the patterns of cognitive, affective, and social growth of elementary school students was described. In addition, the home and school variables which influence such growth were discussed.

Marsh, David D. The effectiveness of Teacher Corps graduates: A national assessment. Paper presented at the annual meeting of the American Educational Research Association, New York, April 4-8, 1977.
Teacher Corps graduates were compared with other young teachers in terms of their teaching behaviors and effectiveness with low income and minority children. Variables examined included the development of ethnically relevant curricula, the use of community resources in teaching, the initiation of contact with parents, the self-concept development of students, and the reading achievement of students.

Mueller, Siegfried, & others. The Chicago child parent centers: A systematic program of effective compensatory education. May 1974. (ERIC Document Service No. ED 111 921).
It was assumed that exposing preschool children to a structured basic skills oriented program would, to a large extent, eliminate the gap between less advantaged and more advantaged children. Program objectives, administration facilities, instruction, supportive services, and parental involvement were described.

Nelson, Richard C., & Bloom, John W. Building parent involvement. Elementary School Guidance and Counseling, 1973, 8(1), 43-49.
The rationale behind parent involvement in guidance and educational activities was discussed, and suggestions for involving parents in the educational process were offered.

Ongiri, David O. School and home communication: A guide for parents and teachers. 1973. (ERIC Document Service No. 106 969).
This project was developed as a practical guide for educators and parents who are interested in understanding as much as possible about reporting student progress to the home. Alternative reporting systems were discussed, and a model reporting plan was included. It was stressed that open, two-way communication between home and school is the most important element in a satisfactory reporting plan.

Query, Joy M.N., & Kuruvilla, Thomas C. Male and female adolescent achievement and maternal employment. Adolescence, 1975, 10(39), 353-56.
The impact of maternal employment upon the academic achievement of adolescents was examined.

Quirk, Thomas J. teacher accountability: Negative and positive NASSP Bulletin, 1973, 57(377), 31-40.
The concept of teacher accountability was explored, including both valid and invalid expectations.

Saturday School: A success story. A school and home learning program for four year olds. 1972. (ERIC Document Service No. 099 146).
The Saturday School program, aimed at ameliorating emotional or learning difficulties in preschool children, was described and evaluated. The program's goal involved providing a close home-school continuum which would reinforce the development of skills to facilitate later learning by the children.

Schaefer, Earl S., & Edgerton, Marianna. Development of inventories for assessing parent and teacher interaction and involvement. Final report. July 1974. (ERIC Document Service No. 105 980).
A conceptual scheme and measures of kindergarteners' parent and teacher involvement and interaction were described. The focus of the report was effective home-school collaboration.

Sealey, Leonard. Open education: Fact or fiction. Teacher's College Record, 1976, 77(4), 615-630.
Ten open education schools were studied to discover what occurred in open classrooms and to learn about the theory which accompanies open education.

Sporakowski, Michael J., & Eubanks, Janet M. Parent-adolescent communication and school adjustment. School Counselor, 1976, 23(3), 185-189.
This study determined the relationship between students' scores on a family communication inventory and their level of school adjustment.

Sturgis, Daniel K., & others. Parental advantagement, IQ, and differential responsiveness to an education enrichment program. Psychology in the Schools, 1974, 11(3), 329-332.
The effectiveness of compensatory educational programs was investigated. It was indicated that a comprehensive enrichment program can reduce the gap in achievement skills between less capable and more capable students.

Summers, Anita A., & Wolfe, Barbara L. Which resources help learning? Efficiency and equity in Philadelphia public schools. IRCD Bulletin, 1976, 11(3).
The relationship between educational inputs, such as the socio-economic background of the student, the school climate, and the school resources and educational outputs, such as students'

Summers, Anita A., & Wolfe, Barbara L., (1976), continued: academic achievement, was examined. It was concluded that the socioeconomic background of the student, his class size at various levels of schooling, and the allocation of school resources had important impacts on a student's academic performance.

Torigoe, Rod. Effecting Behavioral, affective and cognitive changes in children through the involvement and training of significant others: A low-cost program in collaboration with the school. 1976. (ERIC Document Reproduction Service No. ED 143 990). This study examined certain cognitive and affective behaviors of children in three experimental groups: those whose parents were not involved in the treatment, those whose parents were involved, and those whose parents and other significant people were involved. The two groups in which other individuals were involved were effective in producing and maintaining positive gains in the measured behaviors.

E. The Effects of Interpersonal Interaction on Variables Related to Education/Teaching

Bixenstine, V. Edwin, DeCorte, Margaret S., & Bixenstine, Barton A. Conformity to peer-sponsored misconduct at four grade levels. Developmental Psychology, 1976, 12(3), 226-236.
Resistance to endorsing peer-sponsored misbehavior at four grade levels was measured. In addition, judgments of the wrongness of such behavior in the abstract and attitudes toward self, parents, peers, and adults were included in the study.

Blomquist, John S. Students' adjustment to school: A theoretical approach, methods of measuring adjustment. Adjustment relations and personality and environmental factors. Dissertation Abstracts International, 1975, 35(7-A), 4240.

Cotugno, Harry E. Parent and peer influence on adolescent decision making. Dissertation Abstracts International, 1975, 35(10-A), 6833-6834.

Doherty, Patricia. Self acceptance as a function of same-sex peer relationships in adolescent and young adult women. Dissertation Abstracts International, 1976, 37(3-A), 1400.

Galvin, James L. Youth culture and adult success. Dissertation Abstracts International, 1976, 36(9-A), 6038.

Gifford, Vernon D., & Colston, Douglas H. Group influences on the decisions of selected secondary school students. Adolescence, 1976, 10(39), 369-372.
This study was concerned with the effects of group pressure on adolescents' behavior in a variety of situations, including those involving group leadership.

Glass, S.S. A multidimensional measurement of adolescent role orientations over a four year period. Dissertation Abstracts International, 1975, 36(3-A), 1388-1389.

Godfrey, Robert J. Outward Bound: A model for educational change and development. Dissertation Abstracts International, 1972, 33(3-B), 1267.

Hartung, Kathryn M. The relationship of high school students' degree of geographic mobility. Dissertation Abstracts International, 1975, 36(2-B), 887-888.

Hetherington, E. Mavis. Effects of father absence on personality development in adolescent daughters. Developmental Psychology, 1972, 7(3), 313-326.
The subjects included firstborn females without fathers (due to death or divorce). Although few deviations in traditional measures of sex-role typing were obtained, disruptions occurred in subject's interactions with males. The forms of these disruptions varied,

Hetherington, E. Mavis, (1972), continued:
depending upon whether the subject was from a fatherless situation due to death or to divorce. It was also determined that early separation from fathers had more severe effects than late separation.

Kandel, Denise B., Treiman, Donald, Faust, Richard, & Single, Eric. Adolescent involvement in legal and illegal drug use: A multiple classification analysis. Social Forces, 1976, 55(2), 438-458, Personal factors on adolescent drug use was investigated. Based upon the findings of the study, three stages of drug use were differentiated, and the importance of the quality of parent-child relationships was emphasized. Finally, a developmental model accounting for adolescent involvement in legal and illegal drugs was proposed.

King, Ronald, & Easthope, Gary. Social class and friendship choice in school. Research in Education, 1973, 9, 16-24.
Results of a questionnaire about best friend choice which was administered to British secondary school students indicated that social class did not appear to be an important factor in friendship choice. Results also indicated that students chose friends of the same age, sex and learning group and that the school, therefore, influenced choice of friends only in the arrangement of groups having frequent interaction.

Lasseigne, Mary W. A study of peer and adult influence on moral beliefs of adolescents. Adolescence, 1975, 10(38), 227-230.
This study tested the hypothesis that adolescents' moral beliefs are influenced more by peers and less by adults than they were a decade ago. Results indicated, however, that adolescents are seeking guidance from both groups.

Lawrence, Theodore S., & Velleman, J. David. Correlates of student drug use in a suburban high school. Psychiatry, 1974, 37(2), 129-136.
A questionnaire administered to high school students assessed relations between drug use and parental use of drugs, parents' marital status, fear of the law, peer pressure, anti-drug courses, and academic achievement.

Leibowitz, Zandy, & Rhoads, David J. Adolescent peer counseling. The School Counselor, 1974, 21(4), 280-283.
A model of adolescent peer counseling devised and implemented to train peer counselors to listen and respond effectively and to facilitate decision-making was described.

Mannarino, Anthony P. Friendship patterns and altruistic behavior in pre-adolescent males. Dissertation Abstracts International, 1976, 36(11-B), 5764.

Moscher Ralph L., et. al. Psychological education: A means to promote personal development during adolescence. Counseling Psychologist, 1971, 2(4), 3-82.
This project attempted to produce a curriculum comprised of systematic educational experiences which might affect adolescents' personal development. The curriculum was described as a series of courses related to the stages of the human life cycle, and personal growth and development were mentioned to be the primary objectives of the curriculum.

Newman, Barbara M. The study of interpersonal behavior in adolescence. Adolescence, 1976, 11(41), 127-142.
It was contended that interpersonal behavior is a developmental variable which should show patterned changes from stage to stage and which involves three components: 1) the ability to establish a feeling of intimacy and involvement with others; 2) the ability to use language effectively; and 3) cognitive maturation. In the study, subjects' behavior in a small group situation was compared to their behavior during naturalistic observation.

Pathak, Ramdeo. Adjustment level of sociometrically selected groups of peers. Psychological Studies, 1974, 19(2), 130-137.
Four sociometrically selected peer groups completed an inventory which measured adjustment in five areas: home, health, social, emotional, and school. The results indicated that socially unacceptable children are more poorly adjusted than are their more acceptable peers.

Picou, J. Steven & Curry, Evans W. Structural, interpersonal, and behavioral correlates of female adolescents' occupational choices. Adolescence, 1973, 8(31), 421-432.
This study explored the relationship of selected structural, interpersonal and behavioral factors to the occupational choices of high school students. The results of the study indicated the importance of class origins in the formation of occupational orientations.

Reidy, Donal P. The effect of peer group helpers on adolescent females in a weight reduction program. Dissertation Abstracts International, 1976, 36(8-B), 4178-4179.

Savin, Howard A. An investigation of a treatment strategy for effecting interpersonal skill competencies with members of an emotionally disturbed adolescent community. Dissertation Abstracts International, 1976, 36(8-B), 4178-4179.

Savin-Williams, Richard C. An ethological study of dominance formation and maintenance in a group of human adolescents. Child Development, 1976, 47(4), 972-979.
This study tested the hypothesis that a system of dominance relations would be established in an adolescent group and would be durable over time. In addition, it was suggested that such a system would structure socially meaningful aspects of interpersonal behavior. Observational and sociometric methods were used in this study.

Scheibe, Karl E., & Spaccaquerche, Maria E. The social regulation of responses to moral dilemmas among Brazilian school children. Journal of Cross-Cultural Psychology, 1976, 7(4), 439-450.
This study utilized procedures developed by Bronfenbrenner (1972) for assessing the responses of children to moral dilemmas. The Brazilian children involved in this study, unlike the children in other countries, were unaffected by reviews of their responses by adults or peers. Comparative data from nineteen previous applications of the procedure were presented.

Scott, Alvin T. A study of the effects of planned classroom teacher verbal behavior and resulting classroom pupil verbal behavior on the achievement of classroom pupils. Dissertation Abstracts International, 1974, 34(11-A), 6958.

Selman, Robert L., Jaquette, Dan, & Lavin, Debra R. Interpersonal awareness in children: Toward an integration of developmental and clinical child psychology. American Journal of Orthopsychiatry, 1977, 47(2), 264-274.
A five-stage developmental sequence of awareness of interpersonal issues in peer group relations (i.e., trust, friendship, loyalty) was postulated. For the study, children with primary interpersonal problems were matched with normal children.

Smith, H.W. Some developmental interpersonal dynamics through childhood. American Sociological Review, 1973, 38(5), 543-552.
The focus of this small-group study was on age-related developments in interpersonal dynamics. It was argued that negative and positive interpersonal actions differ in their effect on social adaptation.

Stanley, Sheila F. A curriculum to affect the moral atmosphere of the family and the moral development of adolescents. Dissertation Abstracts International, 1976, 36(11-A), 7221-7222.

Wade, Serena E. Interpersonal discussion: A critical predictor of leisure activity. Journal of Communication, 1973, 23(4), 426-445.
Predictor sets for the leisure activities of high school students were developed. Results of the study indicated that interpersonal discussion is a major component of teenage leisure behavior and that different cognitive styles predict different behavior.

Warsaw, George R. Effects of problem-solving training upon ability to generate alternative solutions. Dissertation Abstracts International, 1976, 36(7-A), 4275-4276.

Zlotnick Samuel J. The effects of peer group acceptance and positive reference identification on the achievement of male sixth graders: A study of Negro students attending public schoools in lower socioeconomic and residentially segregated communities. Dissertation Abstracts International, 1976, 36(12-A), 7967-7968.

F. The Effects of the Classroom Environment on Variables Related to Education/Teaching

Burger, Henry G. "Ethno-lemantics;" Evoking "shy" Spanish-American pupils by cross-cultural mediation. Adolescence, 1972, 6(25), 61-76.
The author described a system for increasing the classroom communication of Spanish-American pupils.

Flynn, T. M. Quantifying teachers' recall of student behavior. Psychology in the Schools, 1974, 11(4), 408-411.
The development of a School Adjustment Scale, which helps teachers recall student behavior, was described. It was suggested that the scale can provide useful information to school psychologists, as well.

Glover, John A. and Tramel, Samuel. Comparative levels of creative ability among students with and without behavior problems. Psychological Reports, 1976, 38(3, Pt. 2), 1171-1174.
It was hypothesized that there might be differences between the creative abilities of students with behavioral problems and those without such problems. Results indicated that significant differences exist between the two groups with regard to their scores on measures of creativity.

Horne, Kibbey M. Optimum class size for intensive language instruction. Modern Language Journal, 1970, 54(3), 189-195.
After reviewing the literature on the optimum size of classes in foreign language instruction, the author suggested that a class size of between five and nine students constitutes the ideal. Justifications for this reasoning were discussed.

Jones, William H. Socially exploratory behavior of adolescents in a dyadic problem-solving situation. Dissertation Abstracts International, 1975, 35(7-B), 3647.

Karweit, Nancy L. School influences on student interaction patterns. Center for Social Organization of Schools Report. John Hopkins University, 1976.
The author indicated how organizational features of high schools (i.e., size of school, composition of the student body, and differentiation into curriculum and grade levels) influence the informal interaction of students attending the schools. In turn, the author viewed the informal social arrangement of students within schools as a social network. Properties of such social networks were defined and measurements of actual networks were studied.

Kloss, Marie G. The relations between adolescent creativity and selected variables: Sex, adjustment, art-science preference, complexity-simplicity and type of school. Dissertation Abstracts International, 1972, 33(5-B), 2324.

Kumar, K. Social climate in school and characteristics of pupils. Indian Journal of Clinical Psychology, 1975, 2(2), 163-172.
The hypothesis that the social climate in a school (i.e., the relationships between principal and teachers) influences the students' social adjustment, value orientations, attitudes toward education, and scholastic achievement was investigated. Types of social climate described included open, antonomous, controlled, familiar, paternal, and closed. In general, results indicated that the school's social climate does affect student characteristics.

Marinelli, Frank A. Early childhood recollections as indices of school adjustment. Dissertation Abstracts International, 1976, 36(11-B), 5805.

More, Arthur J. Delay of feedback and the acquisition and retention of verbal materials in the classroom. Journal of Educational Psychology, 1969, 60(5, Pt. 1), 339-342.
The effects on learner performance, related to feedback delays ranging from immediate feedback to a delay of four days were investigated. Based upon the results of the study, the generalizability of the principle of immediate feedback to school learning of verbal materials was questioned. In turn, the existence of an optimal feedback-delay interval was suggested.

Trowbridge, Norma. Creativity criteria for evaluating teachers and students in classrooms. Proceedings of the 77th Annual Convention of the American Psychological Association, 1969, 4(Pt. 2), 639-640.
In a project designed to encourage creativity in classrooms, the author attempted to develop criteria measures for the assessment of creativity of teachers and students. Procedures included verbal interaction analyses of classroom behaviors and classification of the behaviors.

Wagner, G. A. and Feletti, G. I. The effect of frequent school changes on children's self concept development. New Zealand Journal of Educational Studies, 1974, 9(2), 139-144.
The effect of frequent school changes on children's self-concept development was examined. It was indicated that frequent changes in primary schools deprive males, in particular, of the opportunities to develop their self-concepts to the same level as their peers.

SELECTED IN-DEPTH REVIEWS

SELECTED IN-DEPTH REVIEWS

From the preceding annotated bibliography, the Far West Laboratory staff has chosen selected references for longer in-depth reviews. These reviews appear on the following pages. To aid in the retrieval of relevant information, reviews are presented in the following format.

Bibliographic citation

1. Summary of the theory and/or main ideas in the book or article.

2. Major implications for a definition of teaching.

3. Major implications for studying teaching.

4. Categories and definitions given by the author.

5. How categories and definitions relate to the nine elements[1] presented below, or to interactions among/between any of these elements.

    1. Students
    2. Teachers
    3. Other human elements
    4. Role
    5. Time
    6. Place
    7. Task
    8. Standards and sanctions
    9. Communication

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1. Working definitions and a brief discussion of these elements appear in Dawson, M. B., Tikunoff, W. J., and Ward, B. A. Toward an ecological theory of teaching: A starting point. San Francisco: Far West Laboratory for Educational Research and Development, nd.

6. If the source is reporting a study, describe the following:

   a) Behavior

   b) Setting

   c) Treatment

   d) Data sources and data collection methods used

   e) Data analysis procedures used

Authors of the reviews were asked to use this format to structure their reporting, but not to force-fit the content of their sources to it; thus, not every point in the above outline is covered in every in-depth review. These longer reviews are paginated according to the reference being reviewed; there is no consecutive pagination.

Source: Alker, Henry A. and Johnathan Wohl. Personality and achievement in a suburban and an inner city school. Journal of Social Issues, 1972, 28(4), 101-113.

1. Summary: The primary goal of the study is to compare and refine three recent theoretical approaches to questions concerning personality and achievement: 1) Rotter's internal versus external fate control; 2) Kogan and Wallach's rational versus irrational risk taking; 3) Gough's role-enactment capabilities for achievement in contexts demanding either independence or conformity. Secondarily, the study included the application of theory to the academic achievement of disadvantaged students.

   According to the results, the Gough formulation accomplished the largest prediction of students' academic achievement in both the urban and subrban contexts. In addition, this approach also provides the greatest sensitivity to context differences, with students' achievement via conformity (as opposed to achievement via independence) being more highly rewarded in the urban school.

   A proposed integration of the findings from all three approaches emphasizes the ambiguity between intellectual achievement and moral conformity which is prevalent for students in the urban setting. The authors, in fact, state that it may be the "overemphasis in the ghetto school on meeting prevailing moral norms that one be conscientious, diligent, ambitious, and planful that interferes with actual intellectual achievement" (111). They further indicate that "knowledge of the situational incentives for high school achievement, as suggested by the Gough formulation, gives one pause in using high school grades as a replacement for standardized tests in the college admission of inner city ghetto students" (112).

2. Major implications for a definition of teaching: Based upon the results of this article, teachers must be sensitive to the contextual meaning that a particular academic environment has for the students in that environment. As indicated in the study, for example, moral conformity, rather than intellectual achievement, appears to be the prevailing norm in urban schools. In turn, then, teachers must be cautious in evaluating the behaviors of individual students, as this evaluation should be based upon the particular context in which their behaviors occur.

3. Major implications for studying teaching: More than the research methodology used, the findings of the present study have implications for research methodology related to the study of teaching. Specifically, for such research, the particular context in which a behavior occurs must be included as a variable in the study. Further, the interaction effects between this contextual variable and other variables in the study must be examined. In this way, a more accurate interpretation of the results may be obtained.

4. Categories:

a) Rotter's fate control variable is defined as "the generalized expectancy that one can obtain through his own efforts valued rewards and can avoid punishments. Such persons have an internal locus for the control of reinforcement" (102).

b) "Persons believing in an external locus of reinforcement see luck, fate, or political factors that are beyond their control as determining the outcomes" (102).

c) "Rational risk takers, or cognitive risk takers as they are sometimes called, are relatively free from both test-taking anxiety and a defensive need for social approval" (103).

d) "Irrational risk takers, sometimes referred to as motivationally determined risk takers, exhibit both marked test-taking anxiety and a high, defensive need for social approval" (103).

e) The distinction between achievement via independence and achievement via conformity "makes systematic use of each of four possible combinations of its two component variables. Persons may be high on tendencies toward achievement via independence and low on tendencies toward achievement via conformity. They may reverse this pattern of strength or, in addition, be high on both aspects of achievement orientation or low on both.... High-high subjects appear guided by cognitive considerations; they are rational, logical, realistic, and intelligent. Low-low individuals, on the other hand, exhibit moral failings; they are seen as irresponsible, undependable, disorderly, careless show-offs... Individuals high on achievement via conformity but low on achievement via independence are rated as cautious, mannerly, conscientious, helpful, idealistic, shy, and dull; individuals of the remaining type (high achievement via independence and low achievement via conformity) are seen as spunky, courageous, tolerant, foresighted, and distractible" (104-105).

5. The nine elements: In their discussion of persons who have an internal locus of reinforcement versus persons who have an external locus of reinforcement, the authors are referring to the achievement of students. Likewise, the authors refer to this same element in their discussion of rational risk takers, irrational risk takers, achievement via independence, and achievement via conformity.

6. Description of the study:

a) Behavior: The behaviors examined in the study are natural behaviors of junior and senior high school students in both an inner city and a suburban public high school. Students' locus of control is measured by Rotter's I-E Scale (1966), a thirty-

item forced choice inventory. Students' risk-taking is measured through the use of two instruments: Alpert and Haber's (1969) measure of facilitating and debilitating achievement anxiety, a ninteen-item Likert-format scale, and Crown and Marlowe's (1964) measure of evaluative dependence or defensive need for approval, a true-false scale. Achievement via independence and achievement via conformity are measured by two scales from Gough's California Psychological Inventory (1957, 1968). To measure students' academic achievement, their cumulative grade-point average from entrance into high school is used.

b) Setting: No details are given concerning the setting for the study.

c) Treatment: The event being studied involves the examiniation of three approaches (fate control, risk-taking, independence versus conformity) to predicting students' academic achievement. The study, therefore, is a measure of the relationship between personality and achievement.

d) Data collection: The subjects are 105 students from an inner city public high school and 270 students from a suburban public high school. The data collection methods used have been described in (a) above.

e) Data analysis: Correlations and comparisons of correlation magnitude for the purposes of determining statistical significance are the reported data analysis procedures.

--Reviewed by Barbara Babb

Source: Beckman, Linda J. Teacher's and parent's attribution of causality for children's performance. Paper presented at the American Psychiatric Association Meeting, 1973.

1. Summary: This study examines differences between parents and teachers in attribution of causation regarding a child's academic performance. The process through which teachers' and parents' form biases regarding this academic performance is examined, and group differences are identified, as it is assumed that both parents' and teachers' attitudes affect children's motivational level and performance. Based upon answers to questionnaires completed by parents and teachers, results show that teachers clearly distinguish differences among causative factors for children's performance in three performance categories (low performance, moderate performance, high performance). Parents of these children, on the other hand, do not differ significantly in their ratings of causative factors. The factor of "teacher's teaching" is rated as more important by parents in all three conditions than by teachers.

2. Major implications for a definition of teaching: According to the results of this study, teachers rate mother's and father's influence as a less significant factor for low achievement children than they do for high or moderate achievement children. In addition, teachers' ratings for peers' influence show the same trend. Based on results of other research (Bronfenbrenner, The Psychological Costs of Quality and Equality in Education,) it has been indicated, however, that parental influence is an important determinant of children's academic performance. It appears, therefore, that teachers need to be made aware of the impact of the relationship between home and school. An ecological model of teaching, then, should stress the importance of understanding these interaction effects.

   Also in the present study, teachers do consider "other reasons" (a category which includes poor health of the child or parent, family problems, etc.) to be much more likely to affect the low achieving children's performance than they would the high or moderate achievement children's performance. Again based upon the Bronfenbrenner article, this situation appears to be a reality, a fact which must also be included in an ecological theory aimed at defining teaching.

   Finally, the general objective of the study (i.e., determining the difference in causation of academic performance assumed by teachers and parents) is one which must not be overlooked with regard to an ecological perspective. It is important, as indicated by the differences between parents and teachers, for teachers to be sensitized to the parents' phenomenology or definition of the situation. Close communication between parents and teachers, therefore, is another necessary component of an ecological model.

3. Major implications for studying teaching: The importance of the methodology employed in the present study relates to the administration of questionnaires both to parents and to teachers. A next and necessary step, however, would be to provide teachers (and perhaps parents) with the results of the data analysis so that any appropriate countermeasures might be developed. In a true ecological model, communication must occur between the home and the school.

4. Categories:

   a) Attribution of causation may be either internal (the self) or external (the environment). In either case, causal attribution is greatly influenced by a force toward consistency among a person's beliefs.

   b) Biased attribution results when misattribution of the cause of a new event is adaptive for the individual, i.e., when such attribution is consonant with a person's perception of himself and his world.

   c) Academic performance in this study is divided into three groups (above average, average, below average) according to each teacher's definition of the categories.

   d) Factors outlined on the questionnaires as those which might affect a child's academic performance include a child's ability, child's motivation, teacher's teaching, mother's influence, father's influence, peer influence, and other reasons (i.e., child's illness or problems in the family).

5. The nine elements: The factors outlined on the questionnaires used in the study include student factors, teacher factors, and factors related to other human elements. In addition, the element of student is discussed in terms of students' academic performance.

6. Description of the study:

   a) Behavior: The behavior examined in the study is not manipulated, as questionnaires are administered to teachers and to parents which probe their attribution of causality for a child's academic performance.

   b) Setting: The questionnaire is mailed to parents and placed in teachers' mail boxes at the school.

   c) Treatment: The event being studied has been discussed in item 6a.

   d) Data collection: The data sources are teachers and parents, generally mothers; the data collection methods involve both structured

en-ended questions to which parents and teachers write
ses.

ta analysis: Although data analysis procedures are not
sed in detail, mean responses are statistically compared
h the use of Chi squares. This analysis appears to "fit"
search questions asked and the data collection methods
n the study.

rbara Babb

Source: Bittle, Ronald G. Improving parent-teacher communication through recorded telephone messages. Journal of Educational Research, 1975, 69(3), 87-95.

1. Summary: In this study the effects of a parent-teacher communication system which uses a daily recorded telephone message as one type of communication link between parents and their children's teacher are assessed. The subjects include twenty-one first grade students from a rural southern Illinois community. The experiment is conducted in three parts to determine: 1) if the parents would use such a system; 2) if the use of the system would have any beneficial effects on learning; and 3) if the inclusion of non-academic information in the telephone message would be of any value.

   Based upon the results of the study, the author makes the following conclusions: 1) the system is used extensively by the parents; 2) the inclusion of academic information in the daily message results in improved academic performance by every student in the class; and 3) families comply with recorded teacher instructions of a non-academic nature at a much higher rate than they do when these instructions are sent home with the child in written memo form.

2. Major implications for a definition of teaching: Simply by focusing his research on parent-teacher communication, the author is emphasizing the importance of this process. Further, the author's finding that improved communication results in improved academic performance by the student lends increased significance to this type of communication. In defining teaching, then, this element of the educational process--parent-teacher communication--must be emphasized so that teachers might utilize the situation to its maximum potential.

3. Major implications for studying teaching: The author suggests many future research possibilities based upon the result of his study using the daily recorded telephone message. One research possibility includes systematic manipulation via the recorded telephone message of information concerning any particular academic area. In addition, the author proposes evaluating the parental use of such a system as a function of grade level, as well as evaluating the nature of the content of the recorded message. He mentions that the effects of parental application of contingencies for classroom behaviors could be systematically evaluated by prescribing contingencies in the daily message for rewarding or punishing classroom behaviors. Attempts to increase personal contacts between parents and teachers could be programmed into the daily message and, in turn, evaluated. The non-traditional method of communication between parents and teachers, therefore, appears to present many implications for research methodology.

4. Categories:

a) Traditional methods of parent-teacher communication include the report, the parent-teacher conference, failure reports, informal letters, personal contacts between parents and teachers, and newsletters.

b) An effective parent-teacher communications system should allow for a continuous flow of information between the two parties, should provide information which is meaningful and useful, and should be economically feasible in terms of cost and time.

5. The nine elements: The author's descriptions of both traditional methods of parent-teacher communication and an effective parent-teacher communications system involve the elements of teacher, other human elements, and communication.

6. Description of the study:

a) Behavior: The behaviors observed are natural behaviors of students and parents. During Part I of the study, a written record is kept of the number of times the teacher is contacted by parents via telephone, letter or in person concerning any aspect of their child's school behavior. This record is kept both before and after the introduction of the telephone answering service. In Part II of the study, the spelling achievement of the twenty-one first-grade students of the parents who participated in Part I is measured both before and after the introduction of the telephone answering service. Part III of the study involves these same students, as well as a first-grade class of twenty students that serves as a control. The purpose of this experiment is to evaluate the extent to which students comply with teacher instructions as a function of whether or not the instructions are included on the daily telephone message for parents.

b) Setting: The study is conducted in a first-grade class in a small rural town in southern Illinois. The setting is, therefore, a real-life educational situation.

c) Treatment: The study assesses the effects of a teacher-parent communication system which uses a daily recorded telephone message as a communications "link" between parents and their children's teacher. The purpose of each part of the experiment has been discussed in (a) above.

d) Data collection: The data sources are parents and students. The data collection method for Part I of the study is a written tally of the number of parental contacts. Part II involves an assessment of children's spelling achievement both before and after the initiation of the communication system. In Part III, a tally is kept of the number of students who comply with teacher instructions as a function of whether the instructions are included on the daily recorded message.

e) Data analysis: After the tallies are recorded for each part of the experiment, percentages and averages are calculated.

--Reviewed by Barbara Babb

Source: Bixenstine, Barton A., and DeCorte, Margaret S. Conformity to peer-sponsored misconduct at four grade levels. Developmental Psychology, 1976, 12(3), 226-236.

1. Summary: The article reports results of a study in which resistance to endorsing peer-sponsored misbehavior, judgments of the wrongness of such behavior, and attitudes toward self, parents, peers, and adults are measured in children at four grade levels (grades 3, 6, 8, 11) at one school and three levels (grades 3, 6, 8) at another. The critical research question asked is "Does conformity to peer pressure relate to more positive attitudinal responses to peers and/or to diminished regard for parents and adults? The children are divided into three groups and told that no one, peers or parents, would be informed of their answers. The results support a previous finding by Bronfenbrenner that American children resist more under the parent and less under the peer than under the neutral condition. The results also indicate that children do not grow more exacting by grade, nor do they remain stable in their judgments of wrongness. Resistance to peer conformity and judgment of wrongness are highly correlated and steadily decline to the eighth grade, with girls scoring consistently higher than boys. A marked loss in favorableness toward adults provides a basis for explaining the results.

2. Major implications for a definition of teaching: The results of this study confirm the fact of the increasing importance of peers during the progression of a child's life. In an ecological model of teaching, then, teachers need to be made aware of this influence, including the possible behavioral effects of such attitudes. This awareness, in turn, provides teachers with a more realistic understanding of a child's behavior, which is necessary if education is to be designed to best meet a child's needs. In addition, according to the results of this study, teachers must also deal with the fact that as the child gets older, he will have less regard for those most often responsible for making and enforcing rules - parents and adults.

3. Major implications for studying teaching: The methodology consists of three measures which are administered in two separate sets on two occasions. A thirty-five item semantic differential measure and an eleven item wrongness scale comprise the first set. The second set of measures consists of one of the Bronfenbrenner (1967, 1970) Readiness/Resistance to Misbehave measures.

   The first set is administered while the children are in their classrooms. The second set is administered about one week later to children in the classroom, as well. For the second administration, however, the children are divided into three groups: one group is told that only the experimenter will see their forms, one group is told that their peers will see their responses, and the third group is told that their parents will see their responses. A different experimenter administers the second set in an attempt to counteract efforts by the children to relate the two forms and occasions.

The major implication of this methodology, therefore, is the fact that the research is conducted in the classroom - a real-life educational setting. Despite this fact, however, the measures still represent to the children strange tasks which they are being asked to perform by strange persons, even though the setting is familiar. It might be questioned, then, whether the strategy is appropriate for the very personal nature of the research issues being asked.

4. Categories:

a) An example of readiness to conform to peer-sponsored misbehavior would be response (a) to the following hypothetical dilemma:

> Suppose your friends decided to soap a few windows on Hallowe'en. What would you really do? (a) Go along with my friends. (b) Refuse to go along with my friends.

b) An example of resistance to conform to peer-sponsored misbehavior would be response (b) to the above hypothetical dilemma.

5. The nine elements: Both categories of readiness and resistance to peer sponsored misbehavior involve other human elements.

6. Description of the study:

a) Behavior: The behavior examined in the study represents natural behavior in that no group received a treatment intended to change behavior. Two of the groups may have been influenced by being told, however, that their responses would be examined by either peers or parents. Resistance/readiness to peer-sponsored misbehavior on the part of children in grades 3, 6, 8, and 11 is the focus of the study.

b) Setting: The setting is the classroom, and this has been discussed in item 3.

c) Treatment: The experiment under study relates to the following question: Does conformity to peer pressure with regard to antisocial behavior relate to more positive attitudinal responses to peers and/or to diminished regard for parents and adults?

d) Data collection: The data sources were 233 subjects: 116 females, 117 males; 64 from grade 3, 72 from grade 6, 60 from grade 8, 37 from grade 11. The data collection

methods have been discussed in item 3.

e) Data analysis: The procedures used include analysis of variance, analysis of covariance, means, tests of significance, and correlations. These procedures seem to conform to the research questions asked and to the data collection methods employed.

-- Reviewed by Barbara Babb

Source: Blomquist, J. S. Students' adjustment to school. Dissertation Abstracts International. 1975, 35(7-A), 4210.

1. Summary: The work consists of three parts. Part I is a theoretical approach to the process of students' adjustment and ends with a model of this process. Both personal adjustment and social adjustment are included in the model. Part II describes the measurement methods and the results of the study. Part III outlines comparisons among the various categories of adjustment which are assumed to function as barriers or facilitators for good adjustment. Generally, the results indicate that barriers to good adjustment are far more common among maladjusted than among well-adjusted students and that barriers are more common among boys than among girls. In addition, students with low adjustment scores in the areas of behavioral adjustment, work efficiency, and peer adjustment have both the poorest social adjustment and the poorest personal adjustment. Students with high status in those three areas, on the other hand, have the best social and personal adjustment. The problems of pupils whose behavior is rated by teachers as unsatisfactory but who have good peer adjustment are mainly of a social nature. Generally, children who have good behavioral adjustment but unsatisfactory work-efficiency and low peer stature are inhibited and shy children who, in spite of their good behavior, cannot be regarded as personally well adjusted.

2. Major implications for a definition of teaching: According to this study, students' behavioral adjustment, work efficiency, and peer adjustment are related. A teacher should, therefore, identify a student's status in each of these three areas and should, in turn, look for any relationships which might exist. If a student has a problem in any area, the teacher should attempt to provide some sort of assistance, recognizing the effect that a problem in one area might have on the other two facets of a student's life.

3. Major implications for studying teaching: The author uses the common procedure of correlations, which appears to be appropriate to the nature of the questions being studied--questions concerning relationships among variables.

4. Categories: The following definitions and categories are indicated by the author:

   a) Personal adjustment refers to the happiness and harmony that a person experiences in his relations to his surroundings and to himself.

   b) Social adjustment is the social image that an individual has in a certain situation.

   c) Because social and personal adjustment are assumed to be rather closely associated, measures of social adjustment are regarded as essential indices of personal adjustment .

   d) Behavioral adjustment, one aspect of students' adjustment, involves the analysis of data collected from teachers, companions, and students themselves.

e) Work efficiency, a second aspect of students' adjustment, is determined on the basis of correspondence between intellectual ability as measured by an intelligence test and two separate measures of scholastic achievement: results of achievements tests and marks in theoretical subjects.

f) Peer adjustment, a third aspects of students' adjustment, is measured by a sociometric test.

g) Personality and environmental factors which are assumed to function as barriers or facilitators for good adjustment include the following:

1) Age, physical development and health
2) Personality traits
3) Interests and attitudes
4) Intellectual ability and achievement
5) Home environment

5. The nine elements: The author concentrates on the element of the student in his discussions of adjustment. In addition, both the teacher and other human elements (i.e., peers) are considered, as they contribute to a student's adjustment to school.

6. Description of the study:

a) Behavior: The behaviors studied involve natural behaviors.

b) Setting: The students who participated include 3,132 sixth graders, and the setting of the study is the actual classroom. No further details are provided.

c) Treatment: The event being studied is students' adjustment to school, and the three aspects of students' adjustment have been described in section 4 above.

d) Data collection: Students' behavioral adjustment is assessed by collecting and analyzing various data (i.e., tests) from teachers, peers, and students themselves. Students' work efficiency is determined on the basis of the correspondence between intellectual ability as measured by two separate measures of scholastic achievement: results of achievement tests and marks in theoretical subjects. Students' peer adjustment is measured by a sociometric test.

e) Data analysis: The only reported data analysis procedure used in the study involves correlations among the three aspects of students' adjustment and the previously-defined barriers or facilitators for good adjustment.

--Reviewed by Barbara Babb

Source: Brandt, Larry J., Hayden, Mary Ellen and Brophy, Jere E. Teachers' attitudes and ascription of causation. Journal of Educational Psychology, 1975, 67 (5), 677-682.

1. Summary: This study employs a paradigm involving a fictitious fourth-grade student to study teacher attitudes and attribution of causation as a function of the child's performance and ascribed motivational level. In addition, sex of teacher and teacher's locus of control are considered in relation to the expressed attitudes. Sex of teacher is investigated because previous research has suggested that males perform better in and tend to prefer dealing with failure situations in comparison with females, who tend to perform better in and prefer success situations. Teacher's locus of control is investigated because the authors expect it to interact with the teacher's assignment of student outcomes to personal versus impersonal causes. In this regard, it is anticipated that teachers with highly internal loci of control will assume more personal responsibility for student outcomes than will teachers with highly external loci of control.

   The results of the study indicate that teachers' attitudes toward students are determined both by student performance and by ascribed motivational level. The authors mention, however, that the power of ascription to influence the teacher is generally strongest when the teacher has little or no additional information about the student. Teachers' perceptions of their own adequacy of presentation of the subject matter vary with student performance but not with ascribed motivation. The authors conclude, therefore, that ascribed motivation affects a teacher's projection of characteristics onto a student (i.e., skill, effort, etc.), but it is not an important factor in the teacher's self-evaluation. Female teachers having high internal loci of control assign more responsibility for a student's performance to themselves, but the same finding is not true for male teachers. The sex of the teacher has a strong effect on the teacher's rating of student skill as male teachers rate students who are defined as well-motivated differentially higher than they do students who are defined as poorly-motivated. In terms of their interactions with male and female students, however, it is indicated that the sex of the teacher is relatively unimportant.

2. Major implications for a definition of teaching: This study indicates the importance of a teacher's locus of control in relation to the assignment of responsibility for students' academic performance. Thus, it seems important that pre-service and in-service education programs be designed to help teachers become aware of their loci of control and, if desired, to facilitate the modification of a particular orientation. In addition, because teachers' attitudes toward students are determined both by a student's academic performance and by an externally-ascribed motivational level, it is important that teachers interact with students in order to overcome any student characteristics which might be externally ascribed. As the authors state, "the more a teacher interacts with a student, even a fictitious one, the more the student's apparent performance and not the experimenter's ascription of the motivation determines the teacher's attitude toward him" (681).

3. Major implications for studying teaching: Because fictitious students are used in the present study, two problems which the authors indicate have occurred in similar studies are eliminated: 1) Teachers cannot use the externally ascribed traits (i.e., motivation) to treat some students undesirably, 2) the effects of acription of students' behavior on teachers' evaluations are uncompounded by interactions between teacher and student which might otherwise change the behavior being evaluated. In this respect, then, the research questions have accuratly influenced the research methodolody.

   The generalizeability of the results is limited, however, due to the fact that the research has not been conducted in real-life educational settings.

4. Categories:

   a) Ascribed student motivation, for the purposes of this study, involves a written description of a fictitious student which states that the student is either poorly or highly motivated.

   b) Attribution of causation is the teacher's assignment of responsibility for student academic performance to some particular variable (i.e., teacher's instruction, student's motivation, etc.).

   c) Teachers with highly internal loci of control are expected to assume more personal responsibility for student learning outcomes than are teachers with more external loci of control.

5. The nine elements: The authors refer to the element of students when they consider ascribed student motivation. Likewise, they consider the element of teacher when they refer to the variables of attribution of causation, internal loci of control, and external loci of control.

6. Description of the study:

   a) Behavior: Some of the behavior examined in the study is natural, whereas other behaviors are fictitious. The natural behaviors include the teachers' loci of control, their attitudes toward fictitious students and their assignment of responsibility for the fictitious students' academic performance. On the other hand, the experimenters ascribe to the fictitious students both performance and motivation levels.

   b) Setting: A laboratory assistant escorts each subject into a small room furnished with a desk and a microphone. He administers a locus of control inventory to the subject and then provides the teacher with a written description of the task, including a rationale for the experiment, a rationale for being separated from the fictitious fourth

grade student whom he would teach via a one-way michrophone, a detailed schedule of his teaching activities, and a brief description of the child (including an ascription that the child is either highly or poorly motivated). After teaching each of the four four-minute lectures, a test prepared by the experimenters is given to the "student" and then returned to the teacher to grade. The experimenter prearranges the test results, however, so that half of the teachers teach "successful" students, while the remainder teach "unsuccessful" students.

c) Treatment: The experiment investigates teachers' attitudes toward students and their assignment of responsibility for student performance. Specifically, sex and loci of control of the teachers and ascribed performance and motivation of fictitious students are studied for effects on teachers' attitudes and teachers' assignment of responsibility for learning outcomes.

d) Data collection: The teachers for the study are forty-eight males and forty-eight females chosen from an introductory psychology course at a large university. To measure their loci of control, the James-Phares Locus of Control Inventory (James, 1957) is administered. Following each teacher's instruction of the fictitious student, as described above, the student completes an evaluation form on which he rates various student and self characteristics.

e) Data analysis: A 2x2x2 factorial design including the performance of the "student," ascription of the "student's" motivational level, and the sex of the teacher comprises the research model. Five dependent variables are also considered, and these are a teacher's ratings of the following: 1) effort demonstrated by the student; 2) skill of the student; 3) their own adequacy as teachers; 4) partialing of responsibility for student performance between teacher and student; and 5) personality traits of the students. An analysis of variance of the three independent variables is performed on each of the five dependent variables.

--Reviewed by Barbara Babb

Source: Bronfenbrenner, U. Toward an experimental ecology of human development. American Psychologist, 1977, 32(7), 513-531. Published version of paper: "An Emergining Theoretical Perspective for Research in Human Development."

1. Summary: In this article, the author's proposed ecological model for research in human development is outlined. This approach involves a life-span focus, whereby the developing individual is studied in the many environments in which a person typically lives and grows. The author defines the various components of the conceptual framework for this research model, and he concludes by outlining in a series of propositions the requirements of a logical model for research. These definitions and propositions, which constitute the main ideas in the article, will be discussed in items 3 and 4.

2. Major implications for a definition of teaching: Due to the fact that this article outlines an ecological model for research, the implications for defining teaching are indirect. Generally, a definition of teaching, according to the article, must take into account all structures of the ecological environment--microsystem, mesosystem, exosystem, and macrosystem. In addition, an ecological definition of teaching must take into account the reciprocal processes which occur between teacher and student, as well as those interactions which include more than two persons and/or settings. In fact, for an ecological definition of teaching, one should, according to the article, conscientiously strive to identify these interconnections between persons and/or settings.

3. Categories:

   a) "The ecology of human development is the scientific study of the progressive, mutual accommodation, throughout the life span between a growing human organism and the changing immediate environments in which it lives, as this process is affected by relations obtaining within and between these immediate settings, as well as the larger social contexts, both formal and informal in which they are embedded" (514).

   b) "The ecological environment is conceived topologically as a nested arrangement of structures, each contained within the next" (514).

      1. "A microsystem is the complex of relations between the developing person and the environment in an immediate setting containing that person (e.g., home, school, workplace, etc.). A setting is defined as a place with particular physical features in which the participants engage in particular activities in particular roles (e.g., daughter, parent, teacher, employee, etc.) for particular periods of time. The factors of place, time, physical features, activity, participant, and role constitute the elements of a setting" (514). In this definition, an activity is defined in terms of content rather than process.

2. "A mesosystem comprises the interrelations among major settings containing the developing person at a particular point in his or her life...a mesosystem is a system of microsystems" (515).

3. "An exosystem is an extension of the mesosystem embracing other specific social structures, both formal and informal, that do not themselves contain the developing person but impinge upon or encompass the immediate settings in which that person is found, and thereby influence, delimit, or even determine what goes on there. These structures include the major institutions of the society, both deliberately structured and spontaneously evolving, as they operate at a concrete local level. They encompass, among other structures, the world of work, the neghborhood, the mass media, agencies of government (local, state, and national), the distribution of goods and services, communication and transportation facilities, and informal social networks" (515).

4. "A macrosystem refers to the overarching institutional patterns of the culture or subculture, such as the economic, social, educational, legal, and political systems, of which micro-, meso-, and exosystems are the concrete manifestations. Macrosystems are conceived and examined not only in structural terms but as carriers of information and ideology that, both explicity and implicity, endow meaning and motivation to particular agencies, social networks, roles, activities, and their interrelations" (515).

c) "Ecological validity refers to the extent to which the environment experienced by the subjects in a scientific investigation has the properties it is supposed or assumed to have by the investigator" (516). For this definition, the environment includes both objective properties and the way in which the environment is perceived by the subjects (phenomenological definition).

d) "An ecological experiment is an effort to investigate the progressive accommodation between the growing human organism and its environment through a systematic contrast between two or more environmental systems or their structural components, with a careful attempt to control other sources of influence either by random assignment (contrived experiment) or by matching (natural experiment)" (517). The author proposes that initial experiments be employed for heuristic purposes rather than for the purpose of testing hypotheses. Finally, he states that "environmental structures, and the processes taking place within and between them, must be viewed as interdependent and must be analyzed in systems terms" (518).

3. Major implications for studying teaching: After defining the above terms, the author outlines a series of propositions or requirements of an ecological research model at each of the four levels of the environment (micro-, meso-, exo-, and macrosystem). This research

methodology and the propositions, therefore, appear to have direct applicability with regard to an ecological study of teaching.

a) "Proposition 1: In contrast to the traditional, unidirectional research model typically employed in the laboratory, an ecological experiment must allow for reciprocal processes; that is, not only the effect of A on B, but also the effect of B on A. This is the requirement of reciprocity" (519).

b) "Proposition 2: An ecological experiment requires recognition of the social system actually operative in the research setting. This system will typically involve all of the participants present, not excluding the experimenter. This is the requirement of recognizing the totality of the functional social system in the setting" (520).

c) "Proposition 3: In contrast to the conventional dyadic research model, which is limited to assessing the direct effect of two agents on each other, the design of an ecological experiment must take into account the existence in the setting of systems that include more than two person (N + 2 systems). Such larger systems must be analyzed in terms of all possible subsystems (i.e., dyads, triads, etc.), and the potential second and higher order effects associated with them" (520).

d) "Proposition 4: Ecological experiments must take into account aspects of the physical environment as possible indirect influences on social processes taking place within the setting" (523).

e) "Proposition 5: In the traditional research model, behavior and development are investigated in one setting at a time without regard to possible interdependencies between settings. An ecological approach invites consideration of the joint impact of two or more settings or their elements. This is the requirement, wherever possible, of analyzing interactions between settings" (523).

f) "Proposition 6: The design of an ecological experiment involving the same person in more than one setting should take into account the possible subsystems, and associated higher order effects, that exist, or could exist, across settings" (525).

g) "Proposition 7: A fruitful context for developmental research is provided by the ecological transitions that periodically occur in a person's life. These transitions include changes in role and setting as a function of the person's maturation or of events in the life cycle of others responsible for his or her care and development. Such shifts are to be conceived and analyzed as changes in ecological systems rather than solely within individuals. These transitions are not limited to the early years but recur, in various forms,

throughout the life of the person. Hence, the ecology of human development must incorporate a life-span perspective if it is to do justice to the phenomena within its purview" (526).

h. "Proposition 8: Research on the ecology of human development requires investigations that go beyond the immediate setting containing the person to examine the larger contexts, both formal and informal, that affect events within the immediate setting" (527).

i. "Proposition 9: Research on the ecology of human development should include experiments involving the innovative restructuring of prevailing ecological systems in ways that depart from existing institutional ideologies and structures by redefining goals, roles, and activities and providing interconnections between systems previously isolated from each other" (528).

5. The nine elements: It appears that several of the elements defined in Toward an Ecological Theory of Teaching: A Starting Point relate to this article. The author talks about the various individuals (i.e., students, teacher, other human elements) functioning in physical settings in which these individuals are engaged in particular activities (i.e., tasks) in particular roles for particular periods of time. These definitions or their correlates have been defined in (3) above. Overall, then, it seems that the article might serve to clarify the elements outlined in the paper by providing increased breadth and depth to the existing definitions.

--Reviewed by Barbara Babb

Source: Bronfenbrenner, Urie. Reality and research in the ecology of human development. JSAS Catalog of Selected Documents in Psychology, 1976, 6, 94.

1. Summary: The author discusses the issues of both reality and research in human development and establishes a connection between the two. The realities in human development to which the author refers involve the changes that have been taking place over time (the last twenty-five years) in the American family and in the American child.

According to data analyses based on government statistics, "the American family has been undergoing rapid and radical change" (440). These changes include an increase in working mothers of young children, a decrease in the number of adults in the households of families with young children, an increase in single-parent families with young children, and an increase in unmarried mothers. These increases are most frequent for low-income, young mothers with less than a high school education who live in large urban settings. In addition, "families that live in similar circumstances, whatever their color, are affected in much the same ways" (449). With regard to color, however, Blacks constitute the large majority of those families living in poverty.

The author then addresses the issue of what these changes mean for the well-being and growth of children. Infant mortality in the United States is twice as high for non-whites than for whites, and the maternal death rate is four times as high. Other biological deficits include prematurity, which has been found to retard the premature child's intellectual functioning, particularly in children of low-income families. Child abuse is more common in low-income families, and research has demonstrated that variation in student achievement can be predicted by three factors: broken homes, overcrowded housing, and the educational level of the head of the household. The rate of child homicide is increasing, along with increases in rates of child suicide and juvenile delinquency.

The roots of these problems, according to the author, are economic deprivation and the effects of urbanization, including the age-segregation phenomenon which is removing adults from the lives of children.

"If our analysis is correct, what is called for is nothing less than a change in our way of life and our institutions, both public and private, so as to give new opportunity and status for parenthood, and to bring children and adults back into each others' lives. Specifically, we need to develop a variety of support systems for families, and for others engaged in the care of the nation's children. And these support systems, in turn, should be based on the results of systematic research on the environmental forces, both actual and potential, that sustain and enhance the process of human development" (460).

The author follows the dictum by outlining the specific implications for both research, which are discussed in item 3, and public policy in order to reverse the trends. According to the author, the critical question becomes "Can our social institutions be changed --old ones modified and new ones introduced -- so as to rebuild and revitalize the social context that families and children require for their effective function and growth?" (467). The institutions the author mentions as having the greatest impact on the welfare of America's children include day care, the world of work, and the status of women. In particular, the author advocates guaranteed health care, minimum income, and nationwide child-care services for families with young children. "The future belongs to those nations who are prepared to make and fulfill a primary commitment to their families and their children" (469).

2. Major implications for a definition of teaching: The relationship between the settings of a child's life must be emphasized in a concept of teaching, so that the teacher is aware of the many influences which affect and, in some cases, determine a child's functioning. Thus, according to this article, effective teaching must have as its initial objective a thorough understanding of a child's functioning. From this perspective, programs and experiences can be designed by the teacher which enhance the development of the young into competent and compassionate human beings.

3. Major implications for studying teaching: Although the author specifically addresses the implications for research in socialization, some of the same suggestions would apply to educational research.

Initially, the author suggests that the experimental method be applied in a way that systematically alters the nature of the enduring environments in which children live and grow. He calls this approach "experimental human ecology," (461) and states that "the best way to learn about change is to try it" (461).

In addition, the author suggests that, to ensure ecological validity, both independent and dependent variables should be anchored in social reality. From this perspective, at least two ecological systems (i.e., home and school) or their components (i.e., the nine elements) should be compared. "This comparison may consist either of a true experiment in which subjects are assigned at random to different treatments, or of an 'experiment of nature' in which subjects are found in different environments and some effort is made to control for possibly confounding factors" (462).

Finally, the author indicates a variety of characteristics which could enhance the value of the research:

a) "Proposals that examine the effect of different ecological systems as systems are given priority over investigations limited to single variables treated as separate in their effects" (462).

b) "Proposals which assess effects of innovation or deliberately induced ecological change are given higher priority than investigations of the status quo" (462)

c) "Priority is given to proposals in which outcome variables go beyond conventional measures of intellectual performance and academic achievement to include assessments of social and motivational orientations and behavior on the part both of individuals (e.g., children, parents, teachers, community leaders) and social systems (e.g., schools, businesses, social agencies, communities)" (462).

d) "Designs which go beyond the concrete contexts containing the person (e.g., family, classroom) to the higher order systems in which these contexts are embedded (e.g., the neighborhood, the world of work, health and welfare services, the legal system) are regarded as preferable to designs confined to the immediate setting only" (462).

e) "Proposals for research in which the social policy implications are apparent or made explicit are regarded as more appropriate than those in which practical and social implications remain implicit or unclear" (462).

4. Categories:

a) The ecology of human development includes a conception of how environments change and the implications of this change for the human beings who live and grow in these environments.

b) "An ecological perspective focuses attention on development as a function of interaction between the developing organism and the enduring environments or contexts in which it lives out its life" (439).

c) "Ecology implies a fit between the organism and its environment" (439).

d) "Development connotes progressive structural and functional change over time in the relation between the organism and its environment.... Development can take place only where the environment has some stability through time" (439).

5. The nine elements: The author's inclusion of the terms "human beings" and "developing organisms" in his definitions could be more specifically defined to mean student, teacher, and other human elements. In addition, the author includes the element of time, as he indicates that development involves change over time.

-- Reviewed by Barbara Babb

Source: Bronfenbrenner, U. The ecology of human development in retrospect and prospect. Paper presented at the Conference on Ecological Factors in Human Development held by the International Society for the Study of Behavioral Development. (Guilford, England, July 13-17, 1975).

1. Summary: The author outlines his perceptions of the defining characteristics of the ecology of human development, a new scientific approach to the study of human development. In defining these characteristics (which will be discussed in item #3), the author indicates how this new approach differs in its theory, substance, and method from the traditional approach of both developmental and calssical psychology. The distinguishing characteristic of the ecology of human development, however, is its capacity to generate findings with direct relevance to social policy. In fact, the author stresses that this focus on social policy question is essential in order to achieve the ultimate goal of the approach--systematic understanding of the nature and scope of developmental processes in context.

2. Major implications for a definition of teaching: In defining teaching according to this article, one must take into consdieration the various activities, roles, relationships, and settings related to the role of teacher. These elements, in turn, might be conceptualized in terms of systems and subsystems within systems. This focus on systems implies, in addition, that second-order effects (or how the interaction of A and B might be affected by C) be consciously examined at successive levels of the system (i.e., home, school, playground, classroom, group, etc.). Because the reactions that occur wthin systems are dynamic, one must also be concerned with changes in both the participants and the environment. Finally, in defining any role or activity according to the author, it is necessary to understand how the participant himself defines the situation.

3. Major implications for studying teaching: In his outline of the conceptual model for research in the ecology of human development, the author identifies yet another distinguishing characteristic of this approach: the requirement that the person, the environment, and the relations between them be conceptualized in terms of systems and subsystems within systems. The conceptual model could and, according to the author, should be employed in any study which seeks to understand a structure, the place of a developing person within the structure, and the possible relations and processes that occur within the structure. Thus, the following guidelines are directly applicable to educational research:

   a) Researchers should examine not only the influence of an experimenter (teacher, parent) on the subject (child); they should also examine the effect of the subject on the experimenter.

   b) Second-order effects, or how the interaction of members A and B might be affected by a third member C, should be considered at successive levels of systems within the environment.

c) From a comparative perspective, both joint effects and interactions between settings must be investigated, as events ocurring in one setting may influence a person's behavior and development in another setting.

d) The focus must be on the dynamic relations between a person and his surroundings, with both the person and the environment engaged in reciprocal activities. In particular, it is important to investigate how the behavior of the person in instigated, sustained and developed.

e) Because powerful forces affect a person's behavior and development through their impact on the immediate settings containing the person, these larger systems (i.e., work, neighborhood, television, relation between school and community, etc.) must be investigated.

f) Consideration must be given to the developing ecology -- changes in the micro- and macro- systems which envelop a person.

g) In every study, a phenomenology of human ecology must be undertaken, which is an effort to understand what the particular ecological context means to the person in it. It is this phenomenology which provides the practical meaning to social networks, institutions, roles, activities and their interrelations.

h) Finally, contrived research experiments should be instituted at the beginning of a research endeavor, in order to get some notion of the relationship between the developing person and his environment. Experiments in this sense, therefore, are heuristic devices.

4. Categories:

a) Propositional theory is, according to the author, "a conceptual system that generates statements of necessary or probable relations between observed phenomena" (276).

b) "Development implies some kind of progressive change over time. If our assessment takes place at only one point in time, as is often the case, we can hardly expect to learn very much about development" (278).

c) A second-order effect involves the examination of of how the interaction of A and B might be affected by third party C (279).

d) A comparative perspective involves the inclusion of a second setting into the research design; this perspective calls attention to the importance of investigating joint effects and interactions between settings, for example, home and school (280).

e) An ideological system defines the content of the ecological field by explicitly and implicitly endowing motivational meaning to social networks, institutions, roles, activities, and their interrelations. "The existence of an ideological substratum for every level of ecological substructures means that systems and subsystems similar in form can have quite different effects depending on their meaning to the persons who are participants in the system" (283).

f) A phenomenology of human ecology is "an effort to understand what the particiular ecological context -- be it micro or macro -- means to the persons in it" (284).

5. The nine elements: According to this article, if student and teacher were categorized as A and B for the purposes of research, it would be necessary, therefore, to investigate the second-order effects imposed by other human elements, or C. In addition, the author defines these participants as occupying enduring, familiar roles and engaging in activities or tasks that have social meaning in a particular setting. Finally, the author mentions the element of time, as he indicates that development implies some kind of progressive change over time.

It would seem important, however, to add the additional elements of system and setting. In an ecological approach to research, the person, the environment, and the relationships between them should be conceptualized, according to the author, in terms of systems and subsystems within systems. This approach thus provides an opportunity to examine second-order effects and to introduce a comparative perspective. This perspective, in turn, emphasizes the importance of investigating joint effects and interactions between settings, i.e., home and school. "As a case in point, it is not unlikely that the experience of a child in day care, in the classroom, or the formal peer group, may change his pattern of activities and interaction with parents or siblings in the home with consequent implications for the course of development" (280). Any research endeavor should, therefore, consider the influence of the many settings in which a person functions.

--Reviewed by Barbara Babb

Source: Bronfenbrenner, U. The origins of alienation. Scientific American, 1974, 231(2), 53-61.

1. Summary: The author states that increasing disconnectedness from people and activities, or alienation, is occurring in the lives of America's children and young people. Although the institution that is at the center of these changes is identified as the family, the primary causes and consequences are outside the home--and the ultimate consequences are seen frequently in schools. The author demonstrates how changes in family structure, in the parental role, in the physical environment of the home, and in the larger social context (i.e., fragmentation of the extended family, the separation of residential and business areas, the breakdown of neighborhoods, etc.), contribute to the alienation of children and youth. Such alienation, in turn, may manifest itself in the child's emotional, motivational, physical, or intellectual functioning. The solution to the problem, according to the author, involves both the modification of existing social institutions and the introduction of new institution in a manner such that the social context required for the effective functioning of families and children is rebuilt and revitalized. The institutions to which the author specifically refers involve day care, the world of work, schools, and neighborhoods.

2. Major implications for a definition of teaching: Before teaching of any sort can have an impact on reducing alienation, teachers must be knowledgeable about the factors that appear to account for the greatest variation in school achievement--family background, or those characteristics that define the family in relation to its social contexts of work, neighborhood, and community.

   With regard to preschool education, the author suggests that, if preschool programs are to have any lasting constructive impact on the child's development, they must affect both the child and the child's enduring human contacts. Preschool teaching, therefore, should involve the incorporation of these individuals in the planning, administration, and implementation of the programs. In addition, the programs must reach into the community and the neighborhood.

   Generally, the same recommendations apply to teaching at the elementary school level, where children are also typically physically insulated from the lives of families, from the community, from the neighborhood, and from other classrooms within the school. In addition, the author suggests that teachers at this level might become more responsive to the development of the child's qualities as a person (i.e., values, motives, and patterns of social response). Finally, teachers might begin to introduce truly functional courses in human development into the regular school curriculum; such courses would involve a responsible and active concern for the lives of young children and their families.

c) From a comparative perspective, both joint effects and interactions between settings must be investigated, as events ocurring in one setting may influence a person's behavior and development in another setting.

d) The focus must be on the dynamic relations between a person and his surroundings, with both the person and the environment engaged in reciprocal activities. In particular, it is important to investigate how the behavior of the person in instigated, sustained and developed.

e) Because powerful forces affect a person's behavior and development through their impact on the immediate settings containing the person, these larger systems (i.e., work, neighborhood, television, relation between school and community, etc.) must be investigated.

f) Consideration must be given to the developing ecology -- changes in the micro- and macro- systems which envelop a person.

g) In every study, a phenomenology of human ecology must be undertaken, which is an effort to understand what the particular ecological context means to the person in it. It is this phenomenology which provides the practical meaning to social networks, institutions, roles, activities and their interrelations.

h) Finally, contrived research experiments should be instituted at the beginning of a research endeavor, in order to get some notion of the relationship between the developing person and his environment. Experiments in this sense, therefore, are heuristic devices.

4. Categories:

a) Propositional theory is, according to the author, "a conceptual system that generates statements of necessary or probable relations between observed phenomena" (276).

b) "Development implies some kind of progressive change over time. If our assessment takes place at only one point in time, as is often the case, we can hardly expect to learn very much about development" (278).

c) A second-order effect involves the examination of of how the interaction of A and B might be affected by third party C (279).

Source: Bronfenbrenner, Urie. The psychological costs of quality and equality in education. Child Development, 1967, 38(4), 909-925.

1. Summary: The author discusses the issues of quality and inequality in education from a psychological rather than from an economic viewpoint. Generally, he indicates that the major obstacles to achieving quality and equality in education involve the character and way of life of the American Negro, particularly prenatal damage, father absence, an impoverished home environment, and repressive/indulgent patterns of child rearing. These factors contribute to the Negro child's lack of background and motivation necessary for learning; because of this precondition, the Negro child is unable to profit (as indicated by the results of several research studies) from an educational situation in which he finds himself. The Negro child, consequently, begins to feel both powerless and worthless, which is the distinguishing personality characteristic of the Negro child in comparison to the white child. In addition, research data indicate that the intellectual, emotional, and social deficiencies observed in Negro children are considerably more pronounced in boys than in girls. The author stresses that placing the Negro child in integrated classrooms does not do away with his deficiencies, however. In fact, these characteristics of the Negro child have an impact on his white companion. The author suggests, therefore, some countermeasures that might be taken to reduce the impact of the Negro child's deficiencies. Some of the countermeasures discussed include the involvement of more men (especially Negro men) as teachers at the elementary level, after school nontechnical activities conducted by persons (both Negro and white) who demonstrate masculine competence in a variety of spheres, the involvement of adolescents and pre-adolescents in such activities, and the involvement of parents in the activities such that close contact could be developed between the parents and the professional workers. Each of these activities should strive to include not only the underprivileged, but they should include the privileged, as well. In this way, education for democracy becomes both a principle and a process.

2. Major implications for a definition of teaching: This article points to the need for a teacher to take into account the family background of each student with regard to the influence of the home setting on the school setting and vice-versa. In particular, teachers must be aware of the deficiencies which frequently occur among Negro male children. In an integrated classroom, the impact of the disadvantaged Negro child on his white classmates, as well as the reverse impact of the white children on the Negro child, must not be ignored. The teacher might also be made aware of the existing research data which outline the real and debilitating handicaps of the Negro child (i.e., retardation in reading and language skills, short attention span, lack of motivation, etc.) and, most frequently, the male Negro child (i.e., organic debilities, dependency, delinquency, immediate gratification, low academic achievement, etc.). In addition, in an effort to counteract these handicaps, the teacher should be aware of and work to activate certain countermeasures

(i.e., more men as elementary teachers; after-school activities involving parents, other adults, and youth, etc.). The definition of teaching implied by these considerations, therefore, is one which is expanded to consciously include the impact of home and community on the classroom in general and on each student in particular.

3. Major implications for studying teaching: Although the author does not discuss a particular research methodology, a certain strategy is implied in the text. Primarily, a research methodology related to the study of teaching must consciously take account of various characteristics of the home environment of a student, particularly socioeconomic status, family structure (one-parent versus two-parent), family size, as well as individual student variables, such as the sex and race of the child. The effect of these characteristics on the child's functioning in the school setting should be determined in any study which attempts to explain some aspect of the educational process.

4. Categories:

a) Quality in education in this article is referred to in psychological rather than in economic terms. This psychological quality involves the character and way of life of a particular group which, in this case, is the American Negro. Further, psychological quality refers to a recognition in actual practice of the critical role played by psychological factors (i.e., attitudes, values, etc.) in the education of such groups.

b) Organic bases of inadequacy refer to the biological determinants of behavior which might result from inadequate nutrition and prenatal care, complications during birth, or curcumstances after birth. Such organic debilities are the cause of intellectual dysfunction and discouragement.

c) The impact of paternal absence is especially apparent with regard to the personality development of Negro children, resulting from the high frequency of father-absence in Negro families. The effect manifests itself, particularly for males, in immature, submissive, dependent, effeminate, and delinquent behavior.

d) An impoverished environment defines the absence of an educationally stimulating environment during the preschool years. An impoverished environment would be barren of both objects (books, newspapers, pencils, paper, toys, games) and coherent social interaction.

e) Dysfunctional patterns of child rearing include the alternately repressive and indulgent pattern of upbringing found in lower-class families in general and Negro lower-

class families in particular. Under such circumstances, "discipline is exercised principally by the mother, is focused on overt acts rather than motives or goals, and is mainly inhibitory in character" (13).

f. After-school programs to counteract the handicaps of the Negro child would, according to the author, "involve him in patterns of interaction which can develop the basic skills, motives, and qualities necessary for a child to be able to profit from a classroom experience" (16). These activities, which would be nontechnical in nature and would begin at levels accessible and attractive to the lower-class child, "are to be viewed as an essential part of the educational process, falling within the responsibility of those agencies charged with providing public instruction" (16). Children and adults participating in these programs should not be restricted by race or socioeconomic status. In addition, it is necessary that the child's parents, insofar as possible, become actively involved in the activities.

5. The nine elements: In his discussion of both Negro and white children, the author is commenting on the element of student. He also mentions the need for more male elementary school teachers and other human elements to help counteract the organic bases of inadequacy, the effects of paternal absence, and the impact of an impoverished environment, which the author defines as lacking both educational materials and communication in the form of coherent social interaction.

--Reviewed by Barbara Babb

Source: Cantrell, R. P., Stenner, A. J., and Katzenmeyer, W.G. Teacher knowledge, attitudes, and classroom teaching correlates of student achievement. Journal of Educational Psychology, 1977, 69(2), 172-179.

1. Summary: This study examines relationships among three teacher behavioral knowledge and attitude profile groups, the classroom verbalization patterns of teachers within each profile group, and differential achievement gains made by the teachers' first grade students. The purpose of the study, in turn, is to determine whether teachers' behavioral knowledge and attitudes are systematically related to classroom verbalizations and to student achievement. Five phases are included in the investigation: (a) the determination of the factor structure of the Alternative Classroom Strategies Inventory (ACSI), an experimental measure of teacher knowledge of behavioral principles; (b) the determination of the factor structure of the Minnesota Teacher Attitude Inventory (MTAI); (c) the determination of teacher profile clusters on these two measures; (d) the attempt to differentiate empirically among these profile clusters through the use of teachers' classroom teaching statements; and (e) the determination of difference in pupil achievement among the teacher cluster groups.

   The results of the study indicate that it is, in fact, possible to link teacher knowledge of behavioral principles and teacher attitude profiles to indices of both teacher classroom process and differential student achievement. Teachers who have more knowledge of behavioral principles and positive attitudes toward students are more verbally positive in their classroom statements than are teachers low in knowledge of behavioral principles and either positive or authoritarian in their attitudes toward pupils.

   The effective teacher of low- and middle-IQ first grade pupils has, according to the results of the study, the following profile: The teacher is (a) more knowledgeable about behavior theory than is a teacher with a more controlling strategy for dealing with students; (b) much more positive, supportive, and comfortable with students than authoritarian; and (c) more likely to use a higher rate of both praise and questioning while still being moderately directive in the classroom. Further, the achievement gains made by low- and middle-IQ students are not accompanied by a significant decrease in the achievement of high IQ students.

2. Major implications for a definition of teaching: The authors themselves state the implications for teaching: "These findings have direct relevance to the current emphasis on mainstreaming at least borderline IQ pupils within regular classrooms. It seems apparent that teacher knowledge of behavioral principles is correlated with differences in classroom teacher processes and successful academic achievement by borderline and average IQ pupils. The implications of these findings are enhanced when it is realized that the positive benefits for low- and middle-IQ students were obtained without significantly penalizing the achievement growth of above average students" (178).

3. Major implications for studying teaching: The research methodology emphasized in the present study is noteworthy in that it combines the three important components of teacher effectiveness research: (a) presage variables (teacher personality, knowledge, status characteristics); (b) process variables (teacher behaviors, pupil behaviors, teacher-pupil interactions); and (c) product variables (primarily measures of pupil change). According to the authors, "few studies have combined all three criteria simultaneously, much less demonstrated conclusively those teacher competencies causally related to student achievement" (172). The methodology used in the present study, therefore, provides a model for emulation.

4. Categories:

   a) Traditional authoritarian (TA) teachers are "characterized by high factor scores on behaviorally erroneous strategies for problem solving, low knowledge of selective attention variables, relatively low positive acceptance of pupils, high belief in students' tendencies toward irresponsibility, disbelief in student freedom, general dissatisfaction with children and teaching, and a strong belief in maintaining teacher-student distance. This group might be characterized as a low-knowledge, negative cluster" (176).

   b) Positive contingency managers (PCM) are "characterized by high factor scores on structuring classroom contingencies, knowledge of selective attention strategies, and general classroom programming strategies.... Attitude characteristics of this group were dominated by high positive acceptance of children, high belief in the responsibility of children, low belief in the idea that children should submit completely to authority, low dissatisfaction with children and teaching, low belief in the maintenance of traditional teacher-pupil distance, and a high belief in student freedom. The PCM teachers might be viewed as comprising a high-knowledge, positive attitude group" (176).

   c) Traditional nonauthoritarian teachers (TNA) are characterized by "generally low knowledge of behaviorally correct classroom strategies, but very similar attitude patterns to those of PCM teachers. This group might be referred to as low-knowledge, positive attitude teachers" (177).

5. The nine elements: The categories of TA, PCM, and TNA all refer to the elements of the teacher.

6. Description of the study:

   a) Behavior: The behaviors examined in the study are natural behaviors and involve teachers' behavioral knowledge and attitudes, classroom verbalizations, and students' achievement.

   b) Setting: Information about the setting is provided only for the analysis of classroom verbalizations. Data collectors sampled

teacher verbalizations, target child behaviors, and their associated subsequent events every 10 seconds for 30 minutes twice monthly for one year. These observations occur in real-life first grade classrooms.

c) Treatment: The purpose of the study is to determine whether teacher's behavioral knowledge and attitudes are systematically related to classroom verbalizations and to pupil achievement.

d) Data collection: The data sources are teachers and first grade students from Prevention-Intervention Project schools, a project designed to provide resource-type support for children identified by their classroom teachers as needing behavioral and academic remedial help. The data collection methods include the following:

1. The Alternative Classroom Strategies Inventory (ACSI) is an instrument testing teachers' knowledge of behavioral principles.

2. The Minnesota Teacher Attitude Inventory (MTAI) is an instrument which measures teachers' attitudes toward students and toward teaching as a vocation.

3. The Classroom Observation Schedule is used to sample teacher verbalizations, target child behaviors, and their associated subsequent events every 10 seconds for 30 minutes twice monthly for one year.

4. The Otis-Lennon Mental Ability Test (1967) and the Metropolitan Achievement Test (1971) are used to measure students' academic achievements.

e) Data analysis: Factor analyses are performed on both the ACSI and the MTAI. A cluster analysis is, in turn, performed on teacher factor profile scores to determine the existence of teacher pattern groups on the ACSI and the MTAI. A multiple discriminant analysis of teacher verbalizations as predictors of group membership is then performed. Finally, a three-by-three analysis of for student achievement differences is performed using three IQ levels (low IQ range 50-89; mid-IQ range 90-104; and high-IQ range 105-135), and the three cluster groups of teachers (TA, PCM, TNA).

--Reviewed by Barbara Babb

Source: Edwards, William James. An investigation of the relationship between academic achievement and the quality of the parent-child relationship from a Rogerian frame of reference. Dissertation Abstracts International, 1976, 36, 5820A.

1. Summary: This study examines the parent-child relationship from a unified theoretical framework, the Rogerian frame of reference. In addition, the impact of the parent-child relationship is examined in relation to the academic achievement of the children in order to determine the effect of the quality of the parent-child relationship on academic achievement. According to the findings, no significant differences are obtained between high achieving and underachieving students' ratings of the quality of their relationships with their parents. Fathers of high achieving students, however, rate their relationships with their children higher than do the fathers of underachieving students. No significant differences are noted between the mothers' ratings.

2. Major implications for a definition of teaching: This study supports the theory that the interactions which occur among the various settings (i.e., home, school, etc.) of an individual's life have an effect on his functioning in a particular setting. The impacts of such interactions, therefore, should be examined in order to achieve a more realistic understanding of human behavior and development. In terms of teaching, according to this study, the quality of the parent-child relationship should be understood. Such information could provide a better understanding of under-achievement and of an approach to help eliminate the situation.

3. Major implications for studying teaching: Traditional research methods are used in this study, as high achieving and under-achieving students and their parents complete an inventory. Ratings of students and parents are then compared to determine their relationship.

4. Categories:

   a) High achieving students, according to this study, have a grade point average of 3.00 or above; whereas, underachieving students have a grade point average of below 2.00.

   b) Phenomenological ratings of the quality of parent-child relationships are obtained by having both students and parents complete the Barrett-Lennard "Relationship Inventory."

   c) A Rogerian theoretical frame of reference involves the relationship factors of empathy, regard, unconditionality, and congruence.

5. The nine elements: The author classifies students according to high achievers and underachievers. In his discussion of parents, he is including other human elements.

6. Description of the study:

a) Behavior: The behavior examined in this study is natural behavior, as high achieving and underachieving students and their parents complete an inventory to measure the factors of empathy, regard, unconditionality, and congruence in the parent-child relationship.

b) Setting: No details are given about the setting.

c) Treatment: The event being studied is the relationship between the academic achievement of students and the quality of the parent-child relationship from a Rogerian frame of reference.

d) Data collection: Both students and parents complete the Barrett-Lennard "Relationship Inventory" designed to measure the Rogerian relationship factors of empathy, regard, unconditionality, and congruence.

e) Data analysis: Discriminant analysis and F tests to determine significance between ratings of the various groups are the reported data analysis procedures.

--Reviewed by Barbara Babb

Source: England, Thomas Howell. The interactive effects of teacher personality on the academic achievement, social development and cognitive development of elementary school students. Dissertation Abstracts International, 1976, 36, 6376B-6377B.

1. Summary: The main objective of this study is to determine whether the factorial design research model which has evolved from the investigation of psychotherapy effectiveness is applicable to the investigation of teaching effectiveness. Along this line, the author contends that, in addition to any independent effects of the variables of teacher personality, classroom method, or pupil personality, the interaction effects of these three variables have an important relationship to overall teaching effectiveness. Further, the author argues that the patterns of effectiveness among both the main effects and the interaction effects are different for different dependent or outcome measures based on students' achievement and development.

2. Major implications for a definition of teaching: Due to the fact that this article is concerned with the interaction effects of certain variables on students' achievement and development, it is important, when defining teaching, that the totality of the educational situation be emphasized. Thus, even though specific skills and tasks may be identifiable as assets for effective teaching, one must not become too focused on these individual components; instead, these identifiable variables must be considered as they interact with each other within the context of the total teaching experience.

3. Major implications for studying teaching: The main focus of this study involves research methodology, as the author argues that the factorial design research model be applied to the investigation of teaching effectiveness. In fact, the author uses this research model in his study, in which he employs a 2 x 2 x 3 complex least-squares analysis of variance design for each of his four dependent measures. Based upon the results of his study, moreover, the author concludes that "a factorial model is not only a viable model for exploring teaching effectiveness, but is the only model adequate to shed light on such extremely complex processes" (6377).

4. Categories:

   a) Teacher personality styles are identified as controlled and flexible.

   b) Classroom methods include open and traditional.

   c) Pupil personality styles are labeled as striving, obedient, and oppositional.

5. The nine elements: In his description of pupil personality styles, the author creates a relationship to the element of student. Likewise, his identification of teacher personality styles is related to the element of teacher. According to this study, however, it may be useful to include an element related to classroom method (i.e., open, traditional, etc.).

6. Description of the study:

a) Behavior: The behaviors examined in this study are various natural behaviors of teachers and students, including controlled and flexible teacher personality styles; open and traditional classroom methods; striving, obedient, and oppositional pupil personality styles; and students' gains in reading achievement, math achievement, social development, and cognitive development.

b) Setting: The setting for the study involves real-life educational settings in the classrooms of sixteen teachers in grades three through six, along with their 310 students.

c) Treatment: The events being studied are the interaction effects of three variables (teacher personality, classroom method, pupil personality) in relationship to overall teaching effectiveness, as well as the patterns of effectiveness among both the main effects and the interaction effects for different dependent measures.

d) Data collection: The sources for the data are the subjects involved in the study, including 310 elementary students in grades three through six, along with their sixteen teachers. Data collection methods are not reported in this summary of the study.

e) Data analysis: Because the purpose of the study is to demonstrate that the factorial design research model is useful for the investigation of teaching effectiveness, data analysis involves a 2 x 2 x 3 complex least-squares analysis of variance design for each of the four dependent measures. Thus, the "good fit" between research question and data analysis is established in this study.

--Reviewed by Barbara Babb

Source: Fish, Marion C. and Loehfelm, Elizabeth E. Verbal approval: A neglected educational resource. Teachers College Record, 1975, 76(3), 493-498.

1. Summary: The primary concern of the paper is the status of research on teacher verbal behaviors, such as approval or disapproval. Two approaches to studying teacher verbal behaviors are presented: 1) The results of experimental studies which have tried to determine whether approval or disapproval is more effective in influencing social and academic pupil behaviors are summarized. 2) The results of naturalistic observation studies which seek to determine the rates of actual use of teacher approval disapproval in the classroom are discussed. Finally, the implication of these results, which will be outlined in (2), are suggested.

   The results in the area of experimental studies indicate that the combination of ignoring inappropriate behaviors (unless they are harmful) and approving appropriate behaviors has been shown to be the most effective tactic for achieving better social behavior in the classroom. With regard to students' performance on academic tasks, the results of studies demonstrate that teacher verbal approval has increased performance on most acadmic tasks, at least with respect to increasing speed. In addition, verbal approval has at times improved students' accuracy on academic tasks, and such approval is rarely detrimental to performance. Verbal disapproval, on the other hand, gradually loses any motivating effects when used over a longer period of time.

   Concerning naturalistic observation of teacher verbal behaviors, the findings indicate that the rate of verbal approvals per minute is highest in first and second grades (about one per observed minute), and the rate declines sharply after second grade. The rate continues to decline into high school, where it seems to stabilize at one teacher approval or disapproval every five or ten minutes. In grades one and two teacher approval occurs more frequently than teacher disapproval. However, in every other grade the rate of teacher disapproval is higher than the rate of teacher approval. Further, teachers are not using verbal comments to shape the behavior of their pupils; instead, they are occasionally using comments in response to pupil behavior. At every grade level, the rate of verbal approval for students' academic performance is higher than the rate of verbal disapproval, but the reverse is true concerning students' social behaviors.

2. Major implications for a definition of teaching: The implications for defining teaching are presented by the authors themselves, who indicate that teachers could: (497)

   a) Increase the use of verbal approval for appropriate social and academic behaviors (of students). Presently, appropriate social behaviors are rarely praised.

   b) Withold attention for inappropriate social behaviors. Often these behaviors continue to occur because they are rewarded with teacher attention.

c) Use verbal approval and disapproval as a means to effect change in pupil behaviors rather than as an occasional response to selected behaviors.

3. Major implications for studying teaching: The authors focus on variables which, based upon their findings, appear to be neglected in much educational research. With regard to one aspect of teacher verbal behavior, they mention, in fact that "this behavior is an ineffective use of a potentially powerful tool" (496) More effective use of the powerful tool of teacher verbal approval or disapproval might be made, however, if additional research were conducted in the area.

4. Categories: The authors provide the following definitions

a) Certain teacher behaviors are referred to as social reinforcers because they are social behaviors which have been shown either to increase or decrease certain pupil behaviors.

b) Nonverbal teacher behaviors are one example of social reinforcers; these include gestures, facial expressions, and body movements.

c) Teacher verbal behaviors are a second type of social reinforcer; these behaviors include both verbal approval ("very good") and verbal disapproval ("you can do better").

5. The nine elements: In discussing the concepts of social reinforcers, including both nonverbal and verbal behaviors, the authors consider the elements of students, teachers, and communication.

--Reviewed by Barbara Babb

Source: Focus: A successful high school program for dealing with disaffected youth. Roseville, Minnesota Area School District 623, 1975. (ERIC Document Reproduction Service No. ED 118 714).

1. Summary: This article outlines the goals and objectives of Focus, a program designed to deal with students who perform well below their capacity socially and/or academically. The main goal of the program is decreasing alienation between the disaffected youth and the staff or community. In addition, the program strives to improve the youths' self-concepts and to facilitate their access to desirable social roles. A description of the Focus program, including the components of Family Group and Work Experience, is also provided in the article. These two components. as well as the various academic disciplines of Focus, concentrate on meeting individual educational and social needs of the students. The philosophical basis of Focus involves caring, expectations, structure, individualization, responsibility, reinforcement, and evaluation, and a brief discussion of each of these components is included in the article. Finally, it is emphasized that an effective Focus program must coordinate and cooperate with various community agencies working with youth.

2. Major implications for a definition of teaching: Teaching in the Focus program incorporates a variety of roles, some of which may be applicable to an ecological definition of teaching. "The Focus staff is on call twenty-four hours a day to help in a variety of crisis situations which can be neither predicted nor anticipated" (11). For example, teachers may accompany students to juvenile court in the role of voluntary probation officers. In addition, teachers meet frequently with parents to communicate about their child's performance in the program. In the Family Group aspect of Focus, teachers emphasize care, nurturance, and structure in their approach to students in an effort to improve students' self-concepts. Thus, teaching in this context incorporates the role of group leader. Finally, teachers act as supervisors and coordinators of a student's Work Experience. In general, then, the expanded concept of teaching which is operationalized in the Focus program has implications for an expanded concept of teaching via an ecological framework.

3. Major implications for studying teaching: Although research is not the focus of this article, implications for educational research may, nonetheless, be derived. The desired outcome measures of the Focus program are not measures which are typically measured in educational research; however, they constitute outcome measures which other authors (Kifer, 1976) have indicated are desirable. These outcome variables include measures of self-concept, responsibility, caring, motivation, involvement, and interaction, as well as the typical outcome measure of academic achievement. In addition, two alternative components of the Focus program, the Family Group and the Work Experience, offer an entire realm of possibilities for new subject-matter in educational research. Likewise, the Focus emphases on parent-school communication and on school-community communication provide additional impetus for educational research to examine the effects of these interactions.

4. Categories:

a) According to the article, the Focus student is one who is disaffected and is performing well below his capacity socially and/or academically. Specific defining characteristics of such students include absenteeism and tardiness, a poor self-image, hostility toward adults and authorities, and serious economic problems.

b) Parent involvement in Focus is established through parent-teacher-student meetings, individual conferences with Focus staff, and informed communication with the staff.

c) Family Group is a group process which utilizes the peer group (i.e., group pressure) to encourage positive youth development. The teacher functions as a group leader by directing the influence of peers to help a given student deal with his disaffection.

d) Work Experience involves an occupational relations seminar and placement on a job such as food service, business, or industry. Each job is supervised and coordinated by a teacher.

e) The philosophical basis of Focus incorporates the following components: Caring, expectations, structure, individualization, responsibility, reinforcement, and evaluation.

5. The nine elements: The description of the Focus student and the many roles assumed by both student and teacher are related to the elements as outlined in Toward an Ecological Theory of Teaching: A Starting Point. In addition, the concepts of parent involvement and community-related work experience incorporate other human elements. Finally, the Focus component of Family Group emphasizes the element of communication.

--Reviewed by Barbara Babb

Source: Halperin, Marcia Sue. Effects of first-grade teachers' goals and practices on students' perceptions of school. Dissertation Abstracts International, 1976, 36 (12A), 6354-6355.

1. Summary: This study involves thirteen first-grade teachers from four elementary schools who are interviewed and classified according to their educational goals (academic versus social development), their emphasis on classroom structure (strict versus permissive), and their belief that boys are harder to handle than girls (sex biased versus unbiased). In order to determine how teachers influence students' perceptions of school, their achievement aspirations, and their beliefs about sex-typical behavior, six children from each teachers' classroom are seen individually one month before they enter first grade and again seven months later. In addition, four classrooms are observed on eight occasions to obtain data on how teachers translate their attitudes into behaviors and how children respond to different classroom environments.

   Results indicate that teachers' goal orientations influence the way children respond to an achievement-aspiration task, as girls seem to adopt the values of a same-sex model, while boys may react negatively to a female teacher's pressure for achievement. In addition, children's test anxiety and attitudes toward school are related to an interaction between a teacher's goal orientation and the teacher's emphasis on structure. Children who have either academic/permissive or social/strict teachers express more test anxiety and less positive attitudes toward school than do children who have either academic/strict or social/permissive teachers. It appears, therefore, that both the academic/permissive and the social/strict teachers produce classroom environments which are ambiguous or unclear to young children who are in turn, uncertain about how to fulfill classroom demands. Further, children from strict classrooms spend less time attending to work-oriented communications and activities than do children from permissive classrooms, with these results indicating that certain parameters of the school setting limit the range of possible student behaviors.

   The patterns of results related to the sex biased/unbiased dimension suggest that boys from classrooms of sex biased teachers perceive more sex differences than do boys from classrooms of unbiased teachers.

2. Major implications for a definition of teaching: According to this study, three dimensions must be considered when defining teaching: the teacher's educational goal orientation, the emphasis on classroom structure, and the teacher's sex-biased (unbiased) orientation. In addition, the various interaction effects (i.e., goal orientation/classroom structure) should be identified, as these interactions, in turn, influence students' attitudes and behavior in differing ways.

3. Major implications for studying teaching: The study provides an example of a methodology which accurately relates to the research questions being asked. Not only are teachers interviewed; in addition, students are interviewed, and classrooms are observed. Thus, the validity of the results is enhanced by focusing on aspects of the classroom situation other than the teacher alone.

4. Categories:

   a) Education goals of teachers are classified as emphasizing either children's academic or social development.

   b) A teacher's classroom structure is defined as either strict or permissive.

   c) A teacher's sex biased (unbiased) orientation relates to one's belief that boys are (are not) harder to handle than girls.

   d) Strict teachers ask fewer questions, listen less, and impose more rules and commands than do permissive teachers.

5. The nine elements: In considering the three classification variables (a through c above), the author is discussing the element of the teacher. Further, a teacher's educational goal orientation, classroom structure, and sex biased (unbiased) orientation influence the role of the teacher, and the types of tasks which will be performed in the classroom, the standards and sanctions which will exist in the classroom, and the kind of communication which will occur.

6. Description of the study:

   a) Behavior: Both teachers' and students' behaviors are included in the study. As mentioned above, teachers are interviewed and classified according to their educational goals, their emphasis on structure, and the belief that boys are harder to handle than girls. Six children from each teacher's classroom are seen individually one month before they enter first grade and again seven months later to determine how teachers influence students' perceptions of school, their achievement aspirations, and their beliefs about sex-typical behaviors. In addition, four classrooms are observed on eight occasions to obtain data on how teachers translate their attitudes into behaviors and how children respond to different classroom environments. Thus, each of the behaviors studied is a natural unmanipulated behavior.

   b) Setting: No information is included concerning the settings for either the teachers' or the students' interviews. The classroom observations occur in real-life educational settings--the actual classrooms of the teachers.

   c) Treatment: The events being studied have been described in (a) above.

   d) Data collection: The sources, teachers and students, are both interviewed and observed.

e) Data analysis: Although details concerning data analysis are not presented, the author indicates that she uses analyses of variance, a technique which seems to be appropriate, given the research question and the research methodology.

--Reviewed by Barbara Babb

Source: Hetherington, E. Mavis. Effects of father absence on personality development in adolescent daughters. Developmental Psychology, 1972, 7(3), 313-326.

1. Summary: Major developmental theories attribute importance to the father's role in the process of sex-role learning. Because few effects of this phenomena have been found with either preschool or preadolescent daughters, this study investigates the effects on adolescent girls of father absence due to divorce or death.

   Although few deviations in traditional sex-role behavior are obtained, disruptions occur in the females' interactions with males. Daughters of divorcees tend to display the following behaviors: proximity- and attention-seeking from males, early heterosexual behavior, nonverbal communication associated with openness and responsiveness. Daughters of widows, on the other hand, manifest inhibition, rigidity, avoidance, and restraint around males. For females who experience father absence early in life (before age five), the effects are more severe.

   In addition to the study of behavior of the daughters, differences among divorcees, widows, and mothers of intact families on various personality measures, on child-rearing attitudes, and on relations with their daughters are also investigated. The only measures on which both father-absent groups of mothers differ from mothers in intact families involve overprotection of the daughter before adolescence and in feeling more externally controlled. With regard to only the father-absent mothers, the divorcee is more negative than the widow in attitudes toward herself, her marriage, and her life.

2. Major implications for a definition of teaching: This study demonstrates the interaction effects which result when an event in an individual's life influences his behavior and development in other settings. Teaching must, therefore, be defined in a manner which takes into account such interaction effects. With regard to this study, a teacher must be aware of the family background of his students, particularly the presence or absence in the home of the father. More specifically, when the father is absent from the homes of female students, the teacher should be aware of the dysfunctional behavior mentioned in item 1 which adolescent females might display as a result of this circumstance. In addition, after understanding the cause of such dysfunctional behavior, the teacher must make an attempt to develop and employ countermeasures so that more functional behavior might be enhanced.

3. Major implications for studying teaching: The following procedures are employed in the study: a) observational measures of each daughter's behavior; b) measures of each girl's nonverbal behavior in interacting with a male or female interviewer; c) ratings based on an interview with the daughter; d) ratings based on interviews with the mother; e) scores on the California Personality Inventory Femininity Scale (Gough, 1957), the Internal-External Control Scale

(Rotter, 1966), the short form of the Manifest Anxiety Scale (Bendig, 1956) and the Draw-a-Person Tests (Machover, 1957) for mothers and daughters. Although observations of and interviews with students are typically employed in educational research, the process of observing and interviewing parents is atypical. In order to determine the effect of some aspect of the parent-child relationship on the child's behavior, therefore, it would seem that obtaining the parent's phenomenological definition might be both necessary and instructive.

4. Categories:

a) Father absence is categorized as either father absence due to death or father absence due to divorce. In addition, father absence is further defined as early (before the child is aged five) or late (after the child is aged five).

5. The nine elements: In an examination of the effects of the father's role on the behavior of their adolescent daughter, the author is including the variable of other human elements. In addition, the element of time is considered in regard to the issue of early father absence versus late father absence.

6. Description of the study:

a) Behavior: The behaviors examined in this study are natural behaviors including prosocial aggression; dependence; physical contact; participation in masculine, feminine, or neutral activities; various nonverbal behaviors (i.e., eye contact, postural measures, expressive measures); feminine interests, friendships, and roles; attitudes toward parents; self-esteem; mothers' child-rearing practices and attitudes; mothers' attitudes toward life, marriage, and men. The procedures used in assessing these variables have been outlined in item 3.

b) Setting: The observations occur in a real-life setting --a dance at the community recreation center which the subjects attend. The nonverbal behavior measures, the interviews with both daughters and mothers, and the personality measures of daughters and mothers are conducted in the laboratory. The observers of nonverbal behaviors are seated behind a one-way vision screen.

c) Treatment: The behaviors examined are discussed in item 6(a). Generally, the study explores the effects of time (early separation versus late separation) and reason for paternal separation (divorce versus death) on these behaviors

of father-absent adolescent females.

d) Data collection: The sources for the data are father-absent adolescent females and their mothers. The data collection methods, which have been discussed in item 3, involve interviews, observations, and various inventories.

e) Data analysis: The data analysis procedures conform to the research questions and to the data collection, as analyses of variance are performed to determine various interaction effects. For significant interactions, comparisons between means are made with two-tailed t tests.

-- Reviewed by Barbara Babb

Source: Kifer, Edward. The relationship between the home and school in influencing the learning of children. Paper presented at the Pre-Convention Conference of Research of the National Council of Teachers of English, 1976.

1. Summary: This paper reviews some of the literature related to the influence of home and school environments on learning in children. According to results of some of the studies, the home is the major predictor of school activities. The author contends however, that most of these studies deal with "status" variables (i.e., parents' education, socioeconomic status, etc.) rather than "process" variables, or the activities parents undertake to encourage or support (directly or indirectly) both the educational attitudes and achievements of their children. In addition, the author emphasizes the importance of such process variables in both the home and the school, as these variables provide clues to structuring optimal learning environments. Further, the author cites research which indicates a correlation between process variables in both the home and the school. He categorizes these variables as the verbal dimension, activities congruent with the expectations and demands of school, and the general cultural level of the home. The author suggests, in turn, that parent-child and teacher-student interactions, as well as the climate which surrounds these interactions, be more thoroughly investigated, based on the fact of individual differences. Finally, it is indicated that outcome variables other than academic achievement and aptitude (i.e., creativity, attitudes, values, etc.) should be considered in such investigations.

2. Major implications for a definition of teaching: In his conclusion, the author states that he is "convinced that both homes and schools do make a difference" (20). It is important in defining teaching, therefore, that teachers be made aware of the influence of the home on the child's educational performance. Specifically, teachers must become knowledgeable about the process variables which are in operation in the homes of individual students in order to determine how optimal learning environments can be structured in the school for these children. In addition to the cooperation between home and school which is emphasized in this recommendation, there is a focus on the individual student, as well as an implied focus on the actual classroom process variables created by the teachers themselves. Thus, teaching, according to this article, means coordinating the process variables operating in both the home and the classroom so that educational advantages can be produced for each child. According to the author, "in the best of all educational worlds the home and the school are not vying to be the major influence on the learning of children. Rather they are two institutions, or better two sets of competent persons, operating simultaneously and cooperatively to influence and direct the growth of children" (17). In addition, "an emphasis on the effects of interactions between teacher and student can lead to a broader scope for our inquiry and, hopefully, more knowledge of what occurs in teaching and learning" (18).

3. Major implications for studying teaching: Although this article does not include a report of methodology, certain research considerations are implied in the discussion. The author emphasizes both the complementarity of home and school and the fact that teaching and learning are interactive processes. Research related to teaching, therefore, must take account of these issues in order to elucidate an expanded, ecological definition of teaching. In addition, research should attempt to focus on outcome measures other than academic achievement and aptitude. Such measures include students' creativity, values, and attitudes. Finally, according to the author, educational research should involve an examination of the climate in which both home and school interaction occurs.

4. Categories:

a) Status variables include parents' education, parents' occupation, and socioeconomic status of the family.

b) Process variables "are ones that indicate what parents do to encourage and support either directly or indirectly the educational achievements and related attitudes of their children." (5)

c) The verbal dimension is one process variable in the home environment. It includes conversation with the child, reading to the child, and encouraging children to express themselves correctly in both speech and writing.

d) Activities in the home which are congruent with the expectations and demands of the school constitute a second process variable. Such activities include providing a time and place for students to complete homework, working with the student when and if he is faced with a difficult school task, and taking interest in what the child is doing in the school.

e) The general cultural level of the home is a third process variable. This includes an emphasis in the home on reading, discussions, and attending cultural activities.

f) Congruence between what the home expects and rewards and what the school expects and rewards promotes positive growth and development in students; whereas, incongruence leads to less achievement and less positive personal growth.

g) The optimal home environment includes the following characteristics: interactions between the child and the most important persons in the child's life, continuous and concentrated relationships, and duration of the relationships.

h) Teacher process variables identified by the author include teacher competence, classroom teaching procedures, and the ability to elicit student motivation.

5. The nine elements: The author's category of teacher process variables relates to the element of teacher. Other human elements, particularly the family, are included in the author's definition of status variables and process variables. In addition, the author mentions that time "simply sets the frame in which process variables can operate" (14).

--Reviewed by Barbara Babb

Source: Laosa, L.M., Swarty, J.D. and Witzke, D.B. Cognitive and personality characteristics of high school students as predictors of the way they are rated by their teachers: A longitudinal study. Journal of Educational Psychology, 1975, 67(6), 866-872.

1. Summary: This longitudinal study examines the relationships among students' cognitive and personality characteristics, teacher judgments of students, and academic performance. The study begins when the students are in the seventh grade, and it concludes when the same students are in the twelfth grade. Teacher ratings are obtained only in the fourth and sixth years of the study, however.

   Results of the study indicate that teacher ratings of students have differential meaning according to the grade level in which they are obtained. Specifically, it is suggested that in making judgments of students, teachers attend to different traits and characteristics of students depending on students' grade levels. At the tenth grade level, teacher ratings of students are predicted by measures of students' mental abilities. Further, at this grade level, teachers rate more positively those students who are higher in mental ability and who can be characterized as both willing to accomplish difficult tasks and who are intellectually curious. When students are in the twelfth grade, however, teachers' ratings of students are not related to students' mental abilities. At this time teachers rate positively those students who are ambitious, industrious, persevering, and both sympathetic and supportive of others. In addition, teachers rate negatively those students who tend to seek the center of attention.

   The authors offer several interpretations of their findings. One interpretation suggests that teachers' judgments of students are based on different aspects of the students' personalities and cognitive makeups depending on the stage of evolution of the teacher-student relationship. It appears that at the beginning of this relationship teachers might attend to student characteristics related to intellectual ability and achievement. As the teacher-student relationship develops, however, teachers may be more sensitive to the interpersonal traits of students. Another possible explanation of the findings might relate to developmental factors in the students. For example, in the tenth grade, students who are more cognitively developed may exhibit in the classroom the behaviors that elicit positive ratings from teachers. In the twelfth grade, however, these same students are no longer exhibiting those behaviors differentially from their less cognitively developed classmates.

2. Major implications for a definition of teaching: The findings of the present study might be communicated to teachers in pre-service or in-service education in order to increase their awareness of how teachers rate students. After becoming aware of the factors involved in teachers' ratings, teachers can evaluate the validity of their own student ratings.

3. Major implications for studying teaching: An important research methodology employed in this study is that of longitudinal research, as the study involves over six calendar years. In this type of educational research, the individual development of students can be carefully observed. The research possibilities which might include this type of design are numerous. The authors themselves, in fact, suggest that behavioral observations of teacher-student interactions be conducted in a longitudinal fashion.

4. Categories:

   a) Teacher ratings of students involve the nine variables of personality, attitude, quantity of work, quality of work, dependability, judgment and common sense, initiative, cooperativeness, and leadership.

5. The nine elements: The category of teacher ratings of students relates to the elements of the teacher and the student.

6. Description of the study:

   a) Behavior: The authors study the relationships between students' cognitive and personality characteristics, teachers' ratings of students, and students' academic performances. Each of these behaviors is a natural behavior which is observed in the following manner:

      1. Students' cognitive characteristics are measured by four subtests of the Wechsler Intelligence Scale for Children (Wechsler, 1949), and the Wechsler Adult Intelligence Scale (Wechsler, 1955). In addition, the Goodenough-Harris human figure drawing test is used as a cognitive measure.

      2. Students' personality characteristics are measured with the Jackson (1967) Personality Research Form.

      3. Teachers' ratings of students involve the use of nine different four-point scales.

      4. Students' academic performance is measured by grade point average for the fall semester of the tenth grade.

   b) Setting: The student data are collected during individual testing situations which are conducted in distraction-free rooms at school during regular school hours. No information is given regarding the collection of teacher rating data.

   c) Treatment: This has been discussed in (a) above.

d) Data collection: Student subjects are 142 Caucasian students age twelve years, eight months when the study begins and age 17 years, eight months when the study ends. The students attend one junior and one senior high school in Austin, Texas, during the six years of the study. Forty-nine tenth and twelfth grade teachers in academic subjects also participated in the study. The data collection methods used have been described in (a) above.

e) Data analysis: The authors employ Pearson product-moment correlation among the variables, as well as tests of statistical significance.

--Reviewed by Barbara Babb

Source: Murray, Howard B. and Staebler, Barbara K. Teacher's locus of control and student achievement gains. Journal of School Psychology, 1974, 12 (4), 305-309.

1. Summary: This study examines the relationships of the sex of the child, the teacher's locus of control, and the student's locus of control to the student's intellectual achievement gains. It is hypothesized that there will be main effects for children's loci of control and for the sex of the children, with internally-controlled children gaining more in achievement than externally-controlled and with girls gaining more than boys. It is also hypothesized that children will gain more in classrooms of internally-controlled teachers than in those of externally-controlled teachers. The only hypothesis which is supported by the study, however, is the final hypothesis.

2. Major implications for a definition of teaching: Because it has been determined in this study that students gain more in intellectual achievement when taught by teachers who possess an internal locus of control, it would appear to be important for teachers to initially become aware of their loci of control. If, in fact, teachers are found to possess external loci of control, they might be guided toward the adoption of more internal loci of control. In addition, pre-service and inservice educational training programs might provide structured opportunities for facilitating this adoption.

3. Major implications for studying teaching: The authors make a significant contribution to educational research methodology by conducting the study in public school classrooms using actual teachers, students, and achievement data, rather than by conducting their research in a more controlled laboratory setting. A 2x2x2 factorial design involving fifth grade students as male or female, fifth grade students as internally-controlled or externally-controllled has also been employed in the research.

4. Categories:

   a) Internals are persons who usually attribute their successes and/or failures to themselves.

   b) Externals are individuals who usually attribute their successes and/or failures to chance, fate, powerful others, or similar events outside their control.

5. The nine elements: In their discussion of internals and externals, the authors are applying the categories to both students and teachers.

6. Description of the study:

   a) Behavior: The behaviors examined in the study involve natural behavior of both students and teachers. Students' and teachers' internal-external loci of control are obtained as a result of their scores on appropriate measurement instruments.

In addition, students' achievement and intellectual achievement are measured through the employment of various standardized tests.

b) Setting: As mentioned previously, the setting is fifth-grade classrooms in several public elementary schools.

c) Treatment: The events being studied include teachers' and students' loci of control, sex of the students, and intellectual achievement gains of the students.

d) Data Collection:

1. Rotter's (1966) Internal-External Control Scale is used to obtain a measure of the teacher's locus of control. The scale consists of twenty-nine forced-choice items.

2. The Intellectual Achievement Responsibility (IAR) Questionnaire developed by Crandall, Katkovsky, and Preston (1962) is used to obtain a measure of the student's locus of control. This questionnaire consists of thirty-four forced-choice items.

3. The Comprehensive Tests of Basic Skills (CTBS, 1968) is used to obtain a measure of the children's school achievement. The tests consist of ten subtest scores, as well as total subtest scores for the four basic skills areas of reading, language, arithmetic, and study skills.

4. The Short Form Test of Academic Aptitute (SFTAA, 1970) is used to obtain a measure of the children's intellectual achievement. Scores are obtained for Language Intelligence Quotient (IQ), Nonlanguage IQ, and Total IQ.

e) Data analysis: The authors state that three-way analyses of variance, as indicated by the research design, were performed on the measures of intelligence and achievement, and Sheffe's test for multiple comparisons was used to compare means when the F-ratio was significant. This procedure, therefore, positively corresponds to the research design, research questions, and actual data used in the study.

--Reviewed by Barbara Babb

Source: Rogers, Carl R. Questions I would ask myself if I were a teacher. Education, 1974, 95(2), 134-139.

1. Summary: In his talk addressing the issue of humanizing education for gifted children, the author states that his message is applicable to education for children with various labels, as all children have more potentialities than are released. The author then discusses the questions that he would ask himself if he were responsible for teaching a group of children. These questions have major implications for defining teaching, so they are outlined in item 2.

2. Major implications for a definition of teaching: It is indicated that it would be helpful for teachers if they would ask themselves the following questions:

   a) What is it like to be a child who is learning something significant? By asking this question of himself, the teacher is trying to understand the child's world in order to help make school a friendly place in that world.

   b) Can I deal with the child as a person, which might mean letting him know that he may know more than I do in certain areas? The author feels that it may be easiest for people to be open if the setting is some type of intensive group experience.

   c) What are the individual and collective interests and goals of the students? This may be determined through direct questions or free discussion.

   d) How can I preserve and unleash the students' curiosity?

   e) How can I imaginatively provide both physical and psychological resources for learning? According to the author, a good facilitator of learning should spend up to 90% of his preparation time in making resources available to the students.

   f) Can I accept and nurture the strange thoughts which precede creative thinking? Can I make a place for the creative person? This would involve the creation of an atmosphere of mutual respect and mutual freedom of expression.

   g) Can I help the student develop his feeling life as well as his cognitive life?

   Thus, according to the author, if one can begin to answer these questions, he is becoming a facilitator of true learning.

3. Major implications for studying teaching: Although the author does not explicitly describe a research methodology, one could conclude that if he were to suggest such a methodology, the focus would be

on the individual student. Any research methodology would, therefore, emphasize the interests, capabilities, creativity, and total personality of the individual student.

4. Categories:

   a) The author refers to a teacher as a facilitator of learning, as this definition implies that "the 'teacher' become a facilitative learner among learners" (136).

   b) The type of atmosphere which should be created by a facilitator of learning is one of mutual respect and mutual freedom of expression.

5. The nine elements: In the article the author addresses students as "learners." At the same time, he refers to the teacher as a "facilitator" of learning." The author mentions the elements of task and educational materials, as he believes that "a good facilitator of learning should spend up to 90% of his preparation time in making resources available to the young people with whom he or she works" (137). With regard to the element of standards and sanctions, the author feels that truly meaningful learning for a person will be the intrinsic motivation for his happiness and success with a learning experience. Finally, the author included the element of communication, as he indicates that the kind of relationship in which learner and facilitator can come to know and respect each other is most supported in some type of intensive group experience or communications group.

--Reviewed by Barbara Babb

Source: Sealey, L. Open education: Fact or fiction? Teachers College Record, 1976, 77(4), 617-630.

1. Summary: The author summarizes the findings of his informal study of open education in 10 elementary schools at six different sites throughout the country. The chief objectives of the study are to find out what happens in some open classrooms and to know some of the thinking behind open education. The author uses a survey instrument consisting of 77 statements about open education, and teachers indicate both the degree to which they consider each statement important and the degree to which they implement each notion in their classrooms. Statements relate to the environment for learning, children's behaviors, adults' behaviors, and the educational system.

According to the author's interpretation of the survey results, one of the most important effects of the open approach has been the personal and professional growth of the teachers. In addiiton, the emotional climate of open classes is warm and accepting, children are involved in classroom decision-making, the relationships between teachers and students and among students themselves are supportive, and children are given freedom to explore and learn within clearly prescribed boundaries. These situations contribute to high levels of children's self-awareness, self-confidence, and individuality. Such children, in turn, seem more willing to take both intellectual and emotional risks.

With regard to the physical environment of open classrooms, the furniture is arranged informally, and areas of the room are equipped to be used in particular ways. The teacher, therefore, pays attention to small groups and individuals.

Open classrooms have led to closer relationships among the staff in regard to their professional work, and classrooms have opened up to parents. In addition, there are many ways in which parents can participate in school activities.

The author indicates that open education is more prevalent in the primary grades, although he feels that a strong argument could be made that older elementary school children are more suited to open education. Older children are better able to plan, implement, and evaluate their own work.

Several disappointing findings are also mentioned in the author's report. Although the approach to learning via open education is different, the methods used to enhance basic skills learning remain traditional. Further, "despite the gains which relate to humanistic aspects of education, the study shows that very many children are underachievers in that they are capable of going beyond the demands which are made upon them in terms of both content and quality, although they do at least as well as in traditional schools" (626). Children generally are not encouraged to set their own levels

of aspiration, and the point of closure for most prescribed work is seldom decided by the children. According to the author, the chief reason for this appears to be the lack of suitable learning materials and the scant use of any appropriate materials. With regard to the content of learning experiences, neither writing nor the consideration of the environment from a mathematical viewpoint is encouraged. Expression through movement, dance, drama, and music is also very limited. In addition, each element of the school experience seems to be isolated from every other experience. The overall evaluation and assessment of open education remains largely traditional, and none of the schools has developed effective patterns of staff development for teachers, staff, and advisors.

The author concludes, therefore, that "open education has not yet become a fact, although some classes are very close to it" (630). He further suggests that because the essential quality of the educational experience in the open classroom is its responsiveness, the name "open education" should be dropped in favor of "responsive education." This term implies great concern for the individual child and the provision of learning experiences which match individual needs. Thus, the author states that according to his study the open approach to education is still developing, and it is time to make a critical examination of its progress.

2. Major implications for a definition of teaching: The author is generally supportive of open education, although he feels that progress must continue to be made. Guided by his belief, however, he includes in his article several statements which define a teacher in the open classroom (620-621):

> The teacher is concerned with the child's whole development (intellectual, emotional, physical, social).
>
> The teacher attempts to support and enhance each child's personal resources (accepts the child as he is and helps him grow).
>
> The teacher treats each child as a responsible person.
>
> The teacher encourages originality in children.
>
> The teacher encourages children's resourcefulness.
>
> Individual differneces among children are expected and encouraged.
>
> Most teaching results from the diagnosis of individual children's interests, needs, and difficulties.
>
> The teacher works in a creative, innovative way, rather than merely following established patterns.

Teachers promote a purposeful atmosphere by expecting and enabling children to use time productively and to value their work and learning.

The teacher uses evaluation to guide instruction and to provision the classroom rather than to categorize children.

3. Major implications for studying teaching: Regarding the concept of open education, the author states, "We know what the approach should be like, but have little idea what is happening today in the school" (618). A need is indicated, therefore, to conduct further research related to all aspects of open classrooms. In addition, the notion of open education in the upper-elementary grades, as suggested by the author, might be investigated.

4. Categories:

   a) The author compares the open schools to a "well-stocked speciality shop where the owner is sensitive to the nature of his customers and tries to meet a range of their needs by making high-quality provisions available and giving guidance wherever necessary" (617).

   b) The author suggests that the name "open education" be dropped in favor of responsive education. Responsive education "implies stress on the clinical function of the teacher, great concern for the child as an individual, and the provision of learning experiences which really do match the diagnosed needs" (630).

5. The nine elements: In his description of the open school and responsive education, the author refers to the elements of student, teacher, and role.

--Reviewed by Barbara Babb

Seeman, Alice Z. and Seeman, Melvin. Staff processes and pupil attitudes: A study of teacher participation in educational change. Human Relations, 1976, 29(1), 25-40.

1. Summary: This study examines the relationship between the involvement of teachers in school management and their students' attitudes toward school. Two convictions guide the authors in their design of the study: 1) the commitment to teacher-participation in decision-making as a goal in itself, since this participation is assumed to relate to pupil attitudes and achievement; 2) differences in student achievement are more closely related to various attitude measures (i.e., students' self-concepts) than to objective differences in school resources. Thus, the authors hypothesize that teachers who are more fully engaged in democratic staff processes (i.e., dialogue, decision-making, and action related to school problems) will have students who, in turn, have more favorable attudes toward school, toward learning, and toward themselves.

   An analysis of the data substantiates the view that it is not the teachers' personal characteristics (i.e., teaching experience, dogmatism) which are, in fact, crucial in developing favorable student atitudes. Instead, the teachers' organizational participation is the crucial factor. It is indicated that teachers who are more involved in the dialogue/decision-making/action process have students with more favorable attitudes toward school. In addition, these teachers reflect a greater sense of mastery (i.e., low powerlessness) that it is assumed such staff participation would encourage.

   Further, students' attitudes toward school are more favorable where teachers assign most weight to the principal's professional competence as the basis for his daily influence in the school, rather than assigning weight to their fear of his punishment or his legitimacy as the official head of the school. In addition, from the teachers' viewpoints, a non-traditional student-teacher relationship with regard to discipline and a flexible school organization are positively related to favorable student attitudes.

   One final conclusion provided by the authors is that staff participation at the subgroup level (i.e., departments, team teaching, committees) is quite important. They feel that it is in these smaller working groups that the real sense of participation has its roots.

2. Implications for a definition of teaching: According to the findings of this study, it is very important, in terms of encouraging students' positive attitudes toward school, that teachers be motivated to participate in the management processes of the school--dialogue, decision-making, and action. Further, the participation of teachers in subgroups (i.e., committees, team teaching) should be encouraged, as this form of participation is assumed to be the root of a real sense of involvement. Thus, in addition to classroom activities, teaching should involve participation in activities related to

the organization of the total school and to the functioning of subgroups within the school.

3. Implications for a definition of teaching: The authors indicate that both longitudinal data and stricter experimental controls are necessary in additional research relating teachers' organizational practices to students' attitudes toward school. Thus, although no unusual research methodologies are reported in the present study, the variables observed in the study are not typically related in research.

   Based upon this consideration, then, the authors make a novel contribution to educational research methodology.

4. Categories:

   a) The authors' research variable of DDA signifies the process of a teacher's dialogue, decision-making, and action-taking regarding particular changes under way in the school.

   b) An individual's sense of personal control involves one's feeling of control over his own affairs and his own destiny.

   c) An individual's sense of social control is his view of the larger society as an arena subject to control.

5. The nine elements: All three definitions provided in (4) above relate to the elements of teacher and role.

6. Description of the study:

   a) Behavior: Both teachers' and students' natural behaviors are observed in the study. Teachers are probed concerning their degree of participation in dialogue, decision-making, and action with respect to changes in the school. in addition, a direct measure of the teachers' general sense of powerlessness versus mastery is obtained, as well as the following controls: indices of their training and teaching experience; their personal dogmatism; their estimate of teacher morale and other features of the school's organizational climate; and their view of the principal's bases of power among the teachers. The students, on the other hand, are questioned about their attitudes toward school, toward learning in general, and toward their own self-concept.

   b) Setting: The research is conducted in several school districts in southern California. Data are obtained for thirty-five sixth-grade classes in twelve schools, and approximately 1000 sixth-grade students are involved.

c) Treatment: The aim is to conceptualize and measure the participation of teachers in the change process of school systems and to examine the relation of that process to pupils' attitudes toward learning.

d) Data collection: Teachers and students are the data sources. The data is collected via their responses to the following instruments:

1. DDA Questionnaire - This instrument probes teachers' degree of participation in dialogue, decision-making, and action with respect to changes in the school.

2. ATL Scale - The students' attitude-toward-learning scale is composed of twenty-five Likert-type items.

3. ATS Scale - The students' attitude-toward-school scale is also composed of twenty-five Likert-type items.

4. SC Scale - The students' self-concept scale is composed of eighteen Likert-type items.

5. A variant of the Rotter I-E (Internal-External Control) Scale (Rotter, 1966) is used to measure the teachers' general sense of powerlessness versus mastery. This scale consists of fourteen forced-choice items.

e) Data analysis: Data analysis is not described in any detail, although the tables which are found in the article indicate that correlations and tests of significance are used, in addition to an individual's scores on the appropriate instruments.

--Reviewed by Barbara Babb

Source: Selman, R. L., Jacquette, D., and Lavin, D.R. Interpersonal awareness in children: Toward an integration of developmental and clinical child psychology. American Journal of Orthopsychiatry, 1977, 47(2), 264-274.

1. Summary: This paper postulates a five-stage developmental sequence of awareness of interpersonal issues, such as trust in friendship and loyalty, in peer group relations. The authors compare the levels of impersonal and interpersonal awareness used by children and adolescents with social and emotional problems to that used by better functioning peers. They believe that this developmental approach to social cognition can in turn, provide a nonrelativistic set of both therapeutic and educational goals oriented toward developing greater maturity of interpersonal awareness.

The model for the research holds that the stage of thinking about one domain (logico-physical thinking) is related to but not synonymous with the stage of thinking about another (social cognition), and this design is used to test the degree of variation between physical and social thought in socially normal and maladjusted children. A second concern of the study is the examination of how one's developmental level of each type of thinking is related to the person's experiences in a particular area.

A first step in attempting to clarify the major concerns of the study is to describe, through cross-sectional and longitudinal study, developmental stages in interpersonal awareness of individual development, close freindships, and peer group organizations. As mentioned previously, as a result of this experimentation, five stages of such interpersonal awareness have been defined, and it is hypothesized that the stages are hierarchical in development. In addition, it is hypothesized that people may often function at different levels for different issues.

For the comparison of children with social and emotional problems to their better functioning peers, it is hypothesized that the former group might not develop through the domain of social reasoning as steadily as does the latter group. The results of the study confirm this hypothesis. In order to draw any more specific clinical inferences from this research, however, the authors state that they need to perform an analysis of reasoning patterns within each child from the former group.

Finally, the authors suggest that important implications for the fields of social, clinical, and educational psychology may result from the following discovery: although one's developmental levels of social cognition are logically related to one another, an individual may exhibit behaviorally meaningful variations,

which is partially determined by situational factors, in his levels of achievement across the domain of social reasoning. In addition, there are indications that individuals reason at different levels under different conditions. Such descriptions of social concepts, in turn, are useful for understanding the relationship between social reasoning and social behavior.

2. Major implications for a definition of teaching: According to the authors "a missing piece of the puzzle confronting teachers and clinicians who seek strategies to help children grow may yet be found in understanding both of the child's ability to reason about social reality, and of the conditions under which the child fails to use that ability" (p. 273). Thus, it is the responsibility of teachers to determine the child's ability levels to reason about social reality and to evaluate his actual social reasoning. If the child is not functioning at levels consistent with his abilities, teachers should, in turn, offer some sort of remediation "oriented to developing greater maturity of interpersonal awareness" (p. 265). In this way, then, teaching means being concerned about the social development of individuals.

3. Major implications for studying teaching: The authors indicate that additional research concerning the analysis of reasoning patterns of each child be conducted in order to draw more specific inferences about social reasoning. Thus, although no particular methodology is suggested by the authors, they do specify the need for additional educational research into the area of children's levels of social reasoning and their associated social development.

4. Categories:

   a) The development of interpersonal awareness is "how the child conceives of his or her interpersonal relationships, particularly friendships, and peer group relations" (p. 264).

   b) The developing individual is seen as "a naive but insightful psychologist whose own theories of interpersonal and psychological relationships help to shape an orientation to oneself and one's social world" (p. 267).

   c) The authors' five stages of one's interpersonal awareness of the individual, of friendship, and of group organization include the following:

      1. At Stage 0, the very young child (ages 3 to 5 years) equates trust in friendship with physical capabilities.

      2. At Stage 1, children from about five to 11 years of [illegible] realize that it is intentions that determine trustworthiness.

3. From the age of about seven to 14, children at Stage 2 see trust as an equalizing reciprocity between the self-interests of two friends.

4. At Stage 3, from 12 years to adulthood, trust in relationships is a sharing in and supporting of each other's intimate and personal concerns.

5. Among adolescents and adults at Stage 4, friendship is viewed as an ongoing process in which trust means an openness to change and growth, as well as stability in a relationship.

e) A quantitative global stage of interpersonal awareness score averaged across all domains can be calculated from the social geographic map.

f) The developmental postulate of structured wholeness of social cognition is the assumption that an individual's level of reasoning across a range of issues in generally at one predominant stage.

5. The nine elements: The categories of the development of interpersonal awareness, the developing individual, the five stages of interpersonal awareness, and structured wholeness of social cognition in this study relate to the element of student, although they might equally apply to the elements of teacher or any other human elements. The categories of social geographic map and stage of interpersonal awareness score, although they describe the student, also involve the teacher or any other human elements (i.e., counselor), which might compile in these analyses.

6. Description of the study:

a) Behavior: The behaviors examined in the present study are natural behaviors, and they involve individuals' stages of interpersonal awareness. These stages are assessed through discussions of both real and hypothetical interpersonal problems, drawings and their interpretations, responses to projective measures, and open-ended clinical interviews. In addition, a battery of interview measures is used to assess each child's developmental level of thinking on various logical problems.

b) Setting: No information is included about the setting.

c) Treatment: The stages of interpersonal awareness and the logical thinking abilities of children who have experienced extremely inconsistent or disruptive interpersonal experiences are compared to those of their peers who have not experienced such difficulties.

d) Data collection: The 24 children (ages 7 to 13) with more disruptive interpersonal experiences are selected from a population of children with emotionally based learning problems, but without indications of psychotic or gross organic symptoms. These children are individually matched with children of the same sex, race, socio-economic level, psychometric intelligence score (within 10 points), and chronological age (within four months) from the public schools; these children, through teacher report and observation, give no indication of severe difficulties in peer relations. The data collection methods used have already been described.

e) Data analysis: A description of these procedures is not included in the report.

--Reviewed by Barbara Babb

Source: Smith, H. W. Some developmental interpersonal dynamics through childhood. American Sociological Review, 1973, 38(5), 543-552.

1. Summary: According to the author there is theoretical reason to believe that intra-age dynamics differ for adults as compared to child groups. For example, Piaget stresses that child interaction differs qualitatively and quantitatively from adult interaction, as the child bases his communication on his own viewpoint rather than on his listeners. In the present study, groups of five persons of like sex and age (ranging from five to twenty) are studied over four separate sessions. The focus is on age-related developments in interpersonal dynamics, such as number of interaction participants, interaction sequences, and interaction forms. The results indicate that intra-group movements at all ages approximate the adult model, but younger children use different proportions of each type of interaction form than older individuals. The author thus concludes that "strong pressures towards homeostasis must exist in interpersonal relations, regardless of age.

2. Major implications for a definition of teaching: Because the emphasis of the study is interpersonal dynamics, the implication for defining teaching is that teachers become knowledgeable about such dynamics. When an individual is a member of a group, the influence of the group in determining both the quality and quantity of his behavior must be understood. According to this study, if a teacher becomes knowledgeable about group dynamics, he may be able to predict and, therefore, more positively facilitate a certain amount of behavior.

3. Major implications for studying teaching: Borgatta's (1962) revision of Bales' Interaction Process Analysis is the observational system used in the present study. This system, as well as similar systems (i.e., Flanders System of Interaction Analysis), has been used in educational research since about 1950.

4. Categories:

   a) The author distinguishes between the groups in his study through an examination of inter-age (among groups) and intra-age (within the same group) dynamics and development.

   b) "Physical features are the most elemental level of interpersonal behavior" (545). Size of the group, or number of participants, coalitions of participants, and status and power development are examples of physical features.

   c) An examination of interaction forms involves the use of diagnostic norms for judging the uniqueness of interaction rates, as well as a determination of interaction profiles (i.e., solidarity, agreement, suggesting, questioning, etc.).

d) Content in interactions is also defined in terms of negative-positive and task-expressive.

e) The development of adult interpersonal behavior proceeds, according to the author, in the following sequence: from an egocentric viewpoint as a young child, to perceiving other individual viewpoints, to incorporating other viewpoints, to perceiving the group as a group.

5. The nine elements: In his discussion of the physical features of interpersonal dynamics, the author refers to the element of physical locus and arrangement. Generally, however, the entire study is focused on the element of communication or interpersonal interaction.

6. Description of the study:

a) Behavior: The natural interpersonal dynamics of small groups constitute the behavior examined in the present research.

b) Setting: No discussion of the setting is included in the article.

c) Treatment: Each group is given a different Rorschach card. Groups are then told to come to common agreement on what they see in the Rorschach and to make a group story from that perception. The observations for research occur during the completion of the Rorschach task.

d) Data collection: The data sources are subjects from a Northside Chicago kindergarten - elementary - high school parochial school system and a Catholic college. As mentioned in item 3, Borgatta's revision of Bales' Interaction Process Analysis is the category system used in the observations.

e) Data analysis: Although data analysis procedures are not discussed in the article, statistics presented in the tables include percentages, means, standard deviations, and tests of significance. Because the author is working with frequencies in terms of observational data, the "fit" between research questions/data collection and data analysis is not suspect.

--Reviewed by Barbara Babb

Source: Warsaw, George R. Effects of problem-solving training upon ability to generate alternative solutions. Dissertation Abstracts International, 1976, 36(7A), 4275-4276.

1. Summary: The purpose of this study is to determine the effects on selected adolescents of a one-day systematic problem-solving workshop, based on the problem-solving technique of Carkhuff (1973), upon the number of alternative solutions by the subjects generated to interpersonal problems. In addition, the study attempts to determine the extent to which the problem-solving technique is used by the subjects at a follow-up one month after their training.

   The conclusions of the research indicate that the systematic problem-solving training is insufficient to effect a change in the subjects' generation of alternative solutions to the interpersonal problems. Along this line, any problem-solving skill acquired at the workshop is used significantly less by the subjects one month following the training date.

2. Major implications for a definition of teaching: Based upon the results of this study, one might assume that any problem-solving training which a teacher employs should be continually reinforced for the students. In addition, students must frequently be given the opportunity to practice problem-solving. In this sense, then, teaching involves accommodating to students' achievement gains.

3. Major implications for studying teaching: Similarly, in terms of research methodology, this study indicates the difficulty of changing and attempting to measure changes in students' behavior during a time period of one day. In order to be more ecologically valid, therefore, educational research might be designed to more accurately reflect the ongoing nature of formal education.

4. Categories: Based upon their scores on Rotter's Internal-External Scale, students are classified as having one of the following three loci of control: internal, mid-internal/external, or external.

5. The nine elements: In his classification of subjects as internal, internal/external, or external, the author is referring to students.

6. Description of the study:

   a) Behavior: The behavior examined is students' problem-solving techniques. The behavior of the students in the treatment group is manipulated in the sense that they participate in a one-day problem-solving training workshop based on the problem-solving technique of Carkhuff (1973).

   b) Setting: The setting of the workshop is Georgia State University, so it is not a natural environment for the adolescents, ages fourteen to seventeen years, who participate in the study.

c) Treatment: The experimental group participates in the problem-solving training workshop. Neither the attention placebo group nor a comparison group participates in the problem-solving training. The event being studied is the number of alternative solutions generated by the subjects to an interpersonal problem situation.

d) Data-collection: The data sources are randomly chosen adolescents who are sent the Rotter Internal-External Scale and an invitation to attend the one-day problem-solving workshop. On the basis of their Rotter (locus of control) scores, thirty-seven subjects are randomly assigned to experimental and attention placebo groups. A comparison group of sixteen adolescents exists within a private religious school. Subjects in the groups complete a pre-test at the beginning of the workshop day, a post-test at the end of the workshop day, and a post-post-test one month later. The tests involve inter-personal problem situations, and the dependent measure is the number of alternative solutions generated by the subjects for each test.

e) Data analysis: A multivariate analysis of variance is used to test the hypotheses relating to the differences among treatment, attention placebo, and comparison groups across pre-test, post-test, and post-post-test measures. A multivariate analysis of covariance involving the variables of age, sex, locus of control, and grade-point average is also used to test the differences among the three groups across the three measures.

--Reviewed by Barbara Babb

Source: Zlotnick, S.J. The effects of peer group acceptance and positive reference identification on the achievement of male sixth graders: A study of Negro students attending public schools in lower socio-economic residentially segregated communities. Dissertation Abstracts International, 1976, 36(12A), 7967-7968.

1. Summary: This study investigates the relationship between academic achievement, peer acceptance, positive reference identification, and attributed achievement among lower-class male Negro students attending public schools in lower socio-economic residentially segregated communities. It has been demonstrated that lower-class Negro students achieve significantly below the grade level of lower-class Caucasian students attending public schools, and it is the author's contention that the reason for this is because lower-class male Negro students form peer groups which might have a negative impact on the performance of their members.

   The author, in turn, investigates five hypotheses: (a) the higher the student's level of achievement, the greater will be his identification with the school as his positive reference choice. This hypothesis is not confirmed. (b) The more the student identifies with the school as his positive reference choice, the greater will be the peer group's rejection of him. This hypothesis is confirmed. (c) The higher the student's level of achievement, the greater will be the peer group's rejection of him. This hypothesis is not confirmed. (d) The higher the student's attributed level of achievement, the greater will be the student's identification with the school as his positive reference choice. This hypothesis is not confirmed. (e) The higher the student's attributed level of achievement, the greater will be the peer group's rejection of him. This hypothesis is not confirmed.

   The results indicate, therefore, that the male Negro student's achievement is not negatively influenced by peer identification. It is suggested to the contrary, that lower-class Negro students wish to do well academically and view achievement positively.

2. Major implications for a definition of teaching: According to this study, the low level of academic achievement demonstrated by lower-class male Negro students does not appear to be the result of a negative impact of the peer group. This finding should be communicated to teachers so that any contentions they might have regarding the achievement of male Negro students can be clarified. In addition, because the lower-class Negro peer group values academic achievement, the peer group may, in turn, be used to advantage by teachers. Overall, the study indicates the significance of the relationship between students' social behaviors and their academic achievement.

3. Major implications for studying teaching: Although the author did not report unusual educational research methodology, the results of the study provide ideas for additional research. The area of peer influence in the academic lives of lower-class male Negro students could be broadened to include female students. Further research might be

conducted which investigates the relationship between the positive peer group value of academic achievement and the actual academic achievement of lower-class Negro students.

4. Categories;

a) The variables of interest in the present study include academic achievement, peer acceptance, positive reference identification, and attributed achievement.

5. The nine elements: The variables involved in the study related to the elements of students and other human elements, or peers.

6. Description of the study:

a) Behavior: The behaviors investigated are natural behaviors of lower-class male Negro students; these behaviors include academic achievement, peer acceptance, positive reference identification, and attributed achievement.

b) Setting: The sample consists of 139 male lower-class Negro sixth graders who attend 13 classes in three public schools. The schools are located in racially segregated lower, socio-economic areas of New York City. No additional information about the setting is provided.

c) Treatment: The study investigates the relationship between academic achievement, peer acceptance, positive reference identification, and attributed achievement among lower-class male Negro sixth-graders attending public schools in lower, socio-economic racially segregated communities.

d) Data collection: The data sources are the 139 students and the data collection methods involve the following instruments:

1. The student's achievement is measured by the Metropolitan Achievement Tests (MAT).

2. The level of peer acceptance is measured by a specially constructed sociometric scale.

3. The student's positive reference identification is measured by the Reference Group Identification Instrument developed for the project.

4. Attributed achievement is measured by the Attributed Achievement Rating Instrument constructed for the project.

e) Data analysis: To examine the relationship among the variables, a Pearson correlation coefficient and tests of statistical significance are computed.

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